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THE IMPROVEMENT OF WRITTEN EXPRESSION AND COMPOSITION IN THE MOTHER TONGUE.

BY- REGEV, ZINA ORTAR, GINA
HEBREW UNIV., JERUSALEM (ISRAEL)

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- ACTION RESEARCH -

by

ZINA REGEV

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PA 72

with the help of

GINA ORTAR, Ph. D.

(in research procedure and in tests)

**PREPARED FOR THE U.S. GOVERNMENT — DEPARTMENT OF
HEALTH, EDUCATION AND WELFARE, OFFICE OF EDUCATION**

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**THE JOHN DEWEY SCHOOL OF EDUCATION OF THE HEBREW UNIVERSITY
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Z. Regev

FOREWORD

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"And my lips shall utter knowledge clearly" Job 33,3

Expression is one of the oldest and most important of pedagogical subjects, and one which no generation of teachers has ignored. Much has already been written about the indivisible link existing between thought and language¹ and it has long been recognized that verbal expression constitutes the stimulus for human culture. And just as expression is of prime importance in man's spiritual world, so too, is it possessed of great importance in his social circumstances. Life, whether in the limited framework of each individual's circle, or in the wider framework of society at large, is impossible without communication, i.e. without written or oral expression. And with literacy now a general possession, the possibilities for such expression have been made available to all.

It would seem that in no other generation has there been so much emphasis placed on the importance of communication as there has been in our own "alienated" times. Even if we do not completely accept the optimism shown by Hayakawa², who sees language as the principal key to peace between

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- 1) For the approach put forward by Cassirer, see ADAR Z., "The Humanities in Secondary Education", p. 30. Also the detailed bibliography attached to this book.
 - 2) S.I. Hayakawa, "Language in Thought and Action, foreward; N.Y. Harcourt & Co., 1949.

men and nations, nevertheless there is no doubt but that much importance is attached both to language and the clarity of expression.

Yet nevertheless, it seems that written expression is, just at this precise point, in the doldrums. This is not to say that our generation boasts fewer people who can give adequate expression to their thoughts than there were in the past; but rather that at a time when literacy has become a general possession, it is no more the concern of the individual, and for many people, clarifying their thoughts remains difficult.

The aim of this practical research project is, on the one hand, not concerned with clarifying whether the causes for this state of affairs spring from objective difficulties inherent in mass teaching, nor, on the other hand, with ascertaining whether they must be sought, at least partially, in modern pedagogical methods which emphasise the principle of free creativity;¹ nor yet does it set out to determine whether there are other reasons for the low level of written expression.

Israel is no exception to this general condition. Here too, the level of expression is low. Schoolteachers, examiners making high school leaving certificate examination papers and university lecturers all claim that they experience difficulty in understanding what their students write. Consistent and repeated complaints point to a lack of clarity in thought and expression

1) The system generally adopted of teaching written expression in France, the *leçon expliquée*, is thought-provoking as regards this point. Under this system, many hours are devoted to the students' analysis and imitation of written work of a high standard, used as examples of correct style.

and to muddled and disorganized writing which expresses itself in a failure to produce a logical sequence of ideas or correctly worded thought.

This general conclusion has received confirmation as a result of more precise examination. A research study published in 1963¹ reported that the average mark gained by students taking the high school leaving certificate examination in composition was 6.38, with the spread of marks being as follows:

Mark	4	5	6	7	8	9	10	Sigma
% of Compositions	0.8	10.6	45.3	36.2	6.9	0.2	-	0.84

When, at the beginning of 1965, we examined the standard of composition writing in the 10th grade (age 15/16) we saw similar results: the average mark was 6.3. Marks were composed as follows: logic - 6.6, syntax - 6.55 (including punctuation - 5.88), language - 6.1, methods of clarifying ideas - 5.9. The average mark in the 11th grade was 6.57.

The problem posed by the low level of achievement in written expression is one which continues to occupy both teachers and educational research workers. It will be sufficient to point to the chapter devoted to research in the last Education Index in order to illustrate the extent to which research work is concentrated on this issue.² The series of practical experiments undertaken in secondary schools described by A. Jewett (see the bibliographical appendix) is also of interest to us especially since, as happened in our own work, the teachers taking part in these experiments also tried out a number

- 1) Or, Leah, "The Reliability of the School Leaving Certificate Examinations", Megamot, Vol. 12, No. 3, Jerusalem, March 1963. The article reports on a research project carried out by the Szold Institute in which results of several years School Leaving Certificate examinations were analyzed. The article does not state the exact year from which the above marks' picture was drawn.
- 2) Education Index, M.A. Seng, Editor.

of different methods in practical work with their classes.

(For further bibliographical details see Appendix.)

A number of Israeli teachers too, have undertaken various practical experiments and put forward a number of systems of teaching. Thus, for example, a system for teaching composition worked out by S. Nahir has been use for some years, principally in elementary schools. Other teachers, too, have tried out their own individual systems. A number of articles devoted to the problem of written expression have been written both by subject teachers and educators, and several suggestions have been advanced (see the bibliographical appendix for further details). The majority of these articles and books are prefaced by descriptions of the various stages of the work done, but they do not include any results of research projects undertaken nor any account and analysis of the checking and measuring.¹

The undertaking of a research project devoted to written expression is fraught with certain fundamental difficulties springing from the problems of educational research in general² and the very character of this specific subject in particular.

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- 1) A theoretical research study of a limited scale, based on observation of composition lessons in grade 4 (age 9) was carried out by Dr. Dinah Feitelson (Feitelson, D. "Methods of Improving the Teaching of Hebrew in Elementary Schools" Published by the School of Education at the Hebrew University and the Ministry of Education and Culture, Jerusalem, 1964.)
 - 2) Lindquist, E.F.; "Statistical Analysis in Educational Research." Houghton Mifflin, Boston, 1940, pp. 16-17.

The first difficulty in educational research is to define the variables. How can one isolate and define such variables as exist within the system one is trying to inculcate, or the various elements of teaching itself, the student and teacher? Further, in educational research there is always the chance that while certain statistical conclusions can be arrived at, there will yet be difficulties in interpreting them or in pointing out the exact factors which produced them.

This was a difficulty which we had to take into consideration throughout the whole of this project. It was one which assumed particular prominence when we came to analyse the results shown in the tables of correlation: nor could we completely overcome it in dealing with certain details. When we dealt with the overall picture, the position was a little different: we did not even try to check, for example, which of the various elements included in the system could be said to account for the students' achievements in the course as a whole. It was important to us rather to see whether the system in general aided in teaching (and it is possible that there were elements within it which did not forward the course of teaching and which even hindered it.)

A second difficulty arises in the problem of determining standards. What final standard can be adapted in measuring educational achievements?

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- 1) Thanks are due to Dr. Leah Adar for help in clarifying the formulation of such difficulties. See her doctoral dissertation: "An Analysis of the Methodology of Educational Research," Stencil, Jerusalem, 1966.

Even in such a relatively limited subject as the one we are here dealing with, it is difficult to advance quantitative goals; nor is it easy to make any very accurate definition of qualitative aims and thence arrive at any real measurement of achievement in relation to such aims. Thus, for example, how can one define and measure, within the teaching of written expression, whether one has succeeded in achieving such desirable aims as "education toward fairness and intellectual honesty", "the development of clear thought", "writing in clear language", or "good functional writing"? Even the very formulation of such an aim as "acquiring the use of correct language" presents a difficulty in so far as there is an absence of defined and fixed norms in any living language - and how much the more so is this true of today's Hebrew (even as it affects functional writing).

Thus the measurements used in the research relate not to final aims, but rather to the state of affairs as they were at the outset of the work. The question we asked ourselves was: did the system used help the student to progress in relation to the standard of his work at the beginning of the experiment, and to what extent?

A further difficulty affecting educational research arises from the achievement of psychological investigation. The problem lies in the transferring of conclusions reached in the "psychological laboratory" to educational and pedagogical activity as carried out within the framework of the classroom.

Thus we were faced with the difficulty of utilizing what psychological science has to say in the many and different spheres which relate to our field of interest -- the psychology of language, of thought and of learning. Nor was the problem just the immense and detailed body of material, the different

theories and the lack of certainty which exist in psychological science as it relates to these aspects, for there was, too, the very specific problem posed by transferring such knowledge to the sphere of educational research.

This is in fact a problem for special research which is directed towards applying psychological theories to the field of education. and we were careful not to confuse it with the aims of our own project. Our goal was specifically defined as practical -- an examination of the possibilities of improving teaching. We were assisted by a number of principles established by psychological research (for the most part, in the sphere of learning), mainly in didactic techniques used in compiling the exercises.¹ Our thanks are due to Dr. M. Caspi of the School of Education in the Hebrew University who was good enough to go over the exercises worked out for the purposes of the experiment and to give us the benefit of some important remarks. The responsibility for any omissions is, of course entirely our own.

A further difficulty is that concerned with the very character of the quality of written expression. Is it at all possible to teach this subject? Writing is one of the most personal activities, one which is far from being in any way an "exact science". Can one, in fact, lay down a number of rules and then ask one's pupils simply to follow them? Further, progressive trends in education emphasize the importance of child-development via the encouragement

1) Thus, for example, we used the principles of "incubation", "the activities of analysis and synthesis". We faced the pupils with concepts such as "the overall structure " and the stages of learning via "problem-solving".

of creative writing. Every exercise which is undertaken in accordance with defined rules runs the risk of destroying creativity and contains within it some measure of constraint and even serious stifling.

On the other hand, there are those who claim that writing is a craft and that it must be learned. We cannot rely on the expression of natural talent alone; it has to be developed by means of training and exercise. Thus those not endowed by nature with a facility for writing are also enabled to acquire the tools which will help them towards clear expression.

This conflict of views seems to arise from a certain confusion of concepts. The source of confusion lies in the fact that the various protagonists do not clearly distinguish between "creative" writing - where self-expression on the part of the writer is the really determining factor -- and functional writing. For in the latter, while the subjective factor may have some part to play, nevertheless, the essential need is for communication, and in order to achieve, the writer must write clearly and in a manner which is understandable to anyone.

All writing has in it some element of creativity and artistry and some element of functionalism. Perhaps the element of artistry is, in fact, inborn: perhaps it cannot be acquired. In any event, it is not our intention here to concern ourselves with creative writing or with the question of whether it is possible to teach writing which relates to experience, storytelling or description via the application of rules; nor are we concerned with whether or not schools can train writers and poets. The same criteria do not apply to functional writing.

In our age everyone needs some facility in more objective writing. We may not all produce works of art; we will perhaps, not all have rich ideas; but all of us need to know how to express such ideas as we do have in a suitably clear manner. It is the assumption that it is possible to impart the skill of functional writing, which is in fact, the center of secondary school instruction in written expression, that we have set out to examine in this research project.

What, in fact are the essential fundamentals of such writing? Any investigation of this question involves, first of all, a constant consideration of three allied factors without which such writing cannot be said to exist: the writer, what he writes, and the reader. Both those engaged in this type of writing, and those who teach it, frequently forget one or more of these factors. But, it is only after taking them into consideration, that we then achieve a correct analysis and a real understanding of all the following fundamentals necessary to such writing:

1) CONTENT

Information. Starting from the standpoint of the writer, it would seem that the first essential in what he writes is the information, i.e. what he knows or what he has collected in order to write a given piece of work: facts, his own life experience, opinions, etc.

Thought. A random collection of facts, however, can still not be said to constitute functional writing. Thus we must add a further element: thought.

This is a process of balancing the information -- analyzing the facts, weighing one against the other, working out the connection between various ideas, drawing conclusions, etc. Further, functional writing sometimes consists of more than simply achieving a logical assessment of facts -- it may also need original ideas and imagination.

2) FORM

The Technique of Communication. When the writer attempts to pass on information and thought through the medium of written expression addressed to a reader, a further element operates -- the technique of communication.

This technique is composed of a number of different constituent parts:

- a) The structure of the writing, that is to say, the organization of the information and the thought into a clear order;
- b) The methods of clarifying ideas, by which is meant the various ways in which the writer will explain, illustrate and cast light on his ideas; and
- c) The choice of linguistic expression which will be best suited to the clarification of such ideas.

Because of its importance and its broad scope, a little more discussion should be devoted to this latter point. The elements of linguistics can be divided into three broad areas: semantics and morphology, syntax (both the syntax of the isolated sentence and inter-sentence), and style. The latter is a broad concept indeed, it includes both the preceding elements, but its main component is the ability to distinguish between nuances when using the various possibilities made available to the writer by the linguistic

and syntactical structure of a language.

d) And, in addition, there remains the technique of external presentation -- allowing for adequate margins, inserting titles and sub-titles, division into paragraphs and sections, correct indication of quotations, proper bibliographical citations, etc.

3) ATTITUDES

The attitude adopted by the writer, both to the content and the manner in which he presents his thought, is an important element in functional writing. Important in the attitude to content is fairness, intellectual honesty, and, too, the attitude adopted towards the other person, i.e. the presumed reader. The latter attitude finds expression in the writer's honesty in explaining his thoughts or making his point to the reader. It is expressed, too, in the consideration he extends to his reader by arranging his work, and clarifying and expressing it properly - in short, in all the technicalities which facilitate communication.

Our research project was, then, based on these various elements which we regard as fundamental to written expression. In the course of the work, we examined the achievements of the pupils in respect of the various constituents, thus learning where the difficulties were encountered. We then attempted to find methods for improving the level of achievement in these areas, checking the success of these methods in the course of our experiments. Thus the reader of this report will find that at various stages of the project we dealt with the following aspects: content, thought, the organization and

ordering of the material, methods for clarifying ideas, linguistic expression, and, finally, attitudes - both to the content and to the reader.

Of course, the various issues were not treated in this order, but rather in an order dictated by considerations inherent in the methodology of teaching.

Since we were dealing with directed treatment of certain specific aspects, it will be readily understood why we chose to use a series of exercises¹ as a major teaching aid. In each and every stage of the program, different and varied exercises were used in improving achievements in one or another aspect of written expression. Thus, using a method based on exercises, we were able to give direct attention to each and every issue.

But at the same time, we did not neglect the principle of composition writing which is possessed of the utmost importance in the teaching of written expression. These compositions were written by the pupils, both as part of the set of exercises and as summing-up and revision work for certain complete sections.² We also put forward a number of well-written passages which were used as examples for analysis and to help the students arrive at conclusions which might be applied in the future. However, unlike our French colleagues, we do not have a large selection of non-literary texts which can be used for this purpose and which are both suitable for all our pupils and written in good modern language.³

- 1) On the subject of the principle of exercises in modern thinking on the teaching of a mother-tongue and its literature in general, (cont. next page)
- 2) See Adar, Z., op. cit. pp. 47-48. In this connection Adar draws attention to Lyman, R.L., "Summary of Investigations Relating to Grammar, Language and Composition," Chicago, 1929; p. 254.
- 3) See Adar, op.cit., p. 29, on the advantages and difficulties posed by such reading.

(Footnote continued from page): and the teaching of written expression in particular, we quote the remarks of Prof. Zvi Adar (Adar, Zvi - "The Humanities in Secondary Education" Tel Aviv, Dvir and Am-Oved, pp. 68-69).

"In the light of these enormous difficulties which confront the teacher of the child's mother-tongue and its literature, it is especially sad to note that didactic thought in this field is insufficiently developed to offer detailed suggestions and to provide clear aid to the general run of teachers.

Despite the great preoccupation with the problems of teaching the mother-tongue in elementary schools, the teacher of this subject in secondary school has but very poor pedagogical literature from which to draw. Thus it is worthwhile drawing attention here to the major didactic contribution made to the teaching of the mother-tongue and its literature in recent years, the more so since this bears witness to the possibilities of developing further didactic thought on this subject in the future. I refer to the idea of special exercises for the development of comprehension in language and literature.

These exercises are directly intended to develop skills in language and literature. At the same time, the exercises are geared in a specific direction and are as closely limited in aim as possible - they are, too, arranged in accordance with a detailed and predetermined program. Thus, for example, a set of exercises in written expression puts forward special exercises in regard to each of the fundamental elements of written expression: punctuation, suitable paragraph division, the structure of the paragraph, linking paragraphs to subjects, opening sentences for paragraphs, suitable beginnings, suitable endings, avoidance of repetition, and the choice of suitable words. In the course of the various exercises the pupils are asked to correct mistakes, to complete blanks, to compare two passages and point out specific differences between them from the point of view of the writing, to evaluate different methods of writing from the point of view of specific principles of composition, and to fulfill certain aims in writing. Exercises of this type cannot replace written expression, but should be used alongside it in the assumption that they will gradually lead to its improvement."

(At this point Prof. Adar refers in a footnote to the work of Mr. S. Nahir, of the Reali School, Haifa, and also to our own research work).

Thus we built up a work program which, while it was based on developing the pupil's control over the various aspects of written expression, nevertheless was structured along its own logical order. The intention was to advance work methods in the first stage of the experiment and methods for clarifying ideas to the reader in the second.

The main directed principle behind this system, which is radically different from that generally adopted in the teaching of composition in Israel, is that it is based on a series of exercises devoted in turn to each of the various stages of written expression. Thus it permits of progress from one stage (and its relevant chapter in the book) to another.

In fact, the teaching of this subject is sadly neglected in many of our secondary school classes. Theoretically, in accordance with the minimum demands made by the Ministry of Education, composition teaching is carried out by the assignment of six compositions per year. These compositions are written in class, during a one lesson period (teachers sometimes add to this time limit): sometimes, one of the six (or even two) is set for homework, when it may have a wider scope. The teacher corrects the work, evaluates it and then returns it to the pupils. In only some cases are pupils asked to correct the compositions returned to them.¹

1) Of course, there are teachers who use different methods; but our information leads us to conclude that this is the generally accepted practice.

In some classes (and this is a system which usually relates to lower age groups), all the pupils write a weekly composition of rather more limited scope, either in class or as homework. The teacher then corrects a few of these, chosen at random from time to time. Thus the teacher is able to keep a fairly constant check of the various problems which arise in written expression.¹

Compositions corrected by the teacher serve as starting points in the teaching of this subject: for when the work is returned, it is possible for the teacher to linger over the mistakes which seem important and thus explain the faults to the pupils.

Some teachers supplement the composition lessons with various isolated exercises, chosen as they see fit. These are usually prepared on the basis of faults they have detected in their pupils' work: they may be taken from a number of different collections of composition exercises (see the list of books on p. 130); and they are sometimes composed by the teachers themselves. Such exercises generally concentrate on eradicating certain specific faults, the use of idioms and on the writing of paragraph headings. The reader will receive a more detailed description of composition teaching in Israel on pp. 126, 142-147, which deals with the control group in stage B of the experiment. It was at this second stage that we also arranged for observation of work done in these classes and the summary of these observations will help in rounding

1) See further - Nahir, S. "How Shall I Write a Composition?" cited in the bibliographical section.

the picture.¹

Even in the "non-system" - i.e. the generally accepted method of work in schools, there does exist a principle: that of writing, correcting and giving individualized attention to mistakes. This is a system which, from time to time, achieves some improvement in those faults which need correction in accordance with different needs. But it has two major drawbacks:

1) The Practical Drawback

In conditions of frontal teaching and in crowded classes the teacher is unable to cope adequately with the burdens placed upon him. He cannot work with every pupil all the time, nor can he correct composition work from so many pupils in such a way that the corrections will serve to provide any real training in writing.² Moreover, in a secondary school it is no longer sufficient to base the major part of such work on the writing of short compositions whose main point is the development of but one paragraph.

As a consequence, the teacher is unable to work properly and the principle of individual attention goes by the board. At most, the pupil is given six compositions a year to write -- in accordance with the demands of the Ministry of Education and Culture -- and even these cannot be seen as exercises in the true sense of the word. They are rather "tests" administered

- 1) The system which bases itself entirely on learning via good examples of written expression is not one which is widely used in Israel.
- 2) It has been suggested that some of the weight could be removed from the teacher's shoulders if compositions were corrected by assistants who were not part of the regular school staff. Information on an experiment along these lines can be found in Jewett, A. -- The Educational Digest, No. 30; pp. 48-51, September 1964.

for the purpose of determining a pupil's progress in a subject which he has not even been taught! (Thanks are due to Dr. Nehama Leibowitz for drawing attention to this point). Even the teacher's corrections of such work is faulty and for the most part there is no revision of either the corrections or the training itself. What level of training can be provided by such a system? How can it be said to measure up to the problems posed by writing?

2) The Theoretical Drawback

Use of this system means that the pupil "stews in his own juice" or, at best, in the juice of his fellow pupils. He runs the risk of being continually embroiled in correcting his own limited material.

The system leads one to fear that it will contain no push forward and that there will be no teaching of new methods unfamiliar to the pupils, that there will be no instruction regarding further means of expression and no solutions put forward for problems likely to arise in the future.

The teacher deals from time to time with larger or smaller matters arising out of the pupil's work, but even if only one or two subjects form the basis for the lesson on each occasion, they still do not belong to one logical or practical continuum of problems. The pupil is confronted with a veritable sea of strange and different details, an endless list of faults which must be avoided. The whole business of writing puts him off.

The general reaction is usually, "How can one remember all these rules at the same time?"

He is not presented with any positive guidelines, with any system on which to build, with a set of working possibilities from which he can choose what seems good to him. His position can be compared to that of a driver faced with a set of signs reading "No left turn", "No right turn", and "Stop", with an endless succession of red stop-lights and no signal showing any way out.

Proposing a Positive System

As distinct from this, we attempted to propose a system of teaching along positive lines, a system which would provide the pupil with the necessary tools for written expression, and equipping him in such a manner that he would be able to draw on these tools for his own needs. We do not claim to be the first in the field of teaching by imparting method, nor to have laid down the principles for this method (see the Bibliographical Section). Our aim was merely to conduct an experimental research project, in as accurate a manner as possible, which was intended to compare the achievements attained by a system of teaching based on the setting and correcting of compositions -- as described above -- (even in cases where there did exist a well-ordered pattern of teaching and some principle of work), with those attained by a structured system which treats the problems of written expression in a stage by stage manner according to a predetermined plan.

Initiative for such a research project came from Professor Zvi Adar, principal of the John Dewey School of Education in the Hebrew University,

Jerusalem, from 1958 to 1965, together with the Ministry for Education and Culture. In the second stage, the project was "adopted" by the U.S. Department of Education and financed with the help of funds thus made available. The aim of the project was defined as an experiment to improve the teaching of written expression in secondary schools. This was chosen as one of several subjects for research (an associated research project on the teaching of English was published in 1963) because of the realization that while written expression is one of the most important of all secondary school subjects, it is, at the same time, one of the weakest.

PILOT PROJECT

PILOT PROJECT

In the school year 1960/61 it was decided to run a pilot project¹ on the teaching of written expression in the 9th grade (with the participation of 5 teachers) and in the 11th grade (with 4 teachers). The experiment had two purposes: A) To examine the situation and B) To experiment with various individual exercises within the framework of the classroom.

A) At the beginning of the school year, pupils wrote compositions which were then passed on to a team of examiners. The members of the team examined the compositions according to the following criteria:

1) The Structure of the Composition

Members of the team wrote a summary of each composition in which they listed the ideas discussed in the order in which they had appeared in the original work. The summary also listed failures of thought (wrongly drawn conclusions, discrepancies of fact, etc.). Further weaknesses listed were those relating to the opening and concluding paragraphs, logical order and connections made between ideas.

1) Undertaken by Shulamit Yinnon

2) Linguistic Mistakes

The team listed all linguistic mistakes found without reference to pre-determined categories or standards. The principle applied here was that the examiner should let nothing pass, but should list all mistakes without exception. When all the mistakes had been listed, the various lists, written on filing cards, were sorted into a number of different categories which thus enabled us to get a true picture of the composition work of our school pupils.

The categories listed were (for the general picture only):

<u>Content:</u>	Richness of ideas
	Adherence to the subject set
<u>Construction:</u>	Logical arrangement of ideas
	Opening and concluding paragraphs
	Connection between paragraphs
	Construction and unity of the paragraphs
<u>Inter-Sentence Structure</u>	Logical arrangement of sentences
	Logical fitting together of sentences
	Grammatical agreements between sentences (implications, connections, tenses, gender and number)
<u>The Sentence</u>	Shifts of logic in the sentence, omission of parts of the sentence
	Correct association of parts of the sentence (i.e. in gender and number)

Structure of the sentence (its length and complexity)

Word order

Conjunctions and prepositions

The use of possessive forms¹

Punctuation

Morphology

(There were almost no mistakes here)

Spelling

(This was an aspect with which the experiment did not deal.)

Style

Use of words, prepositions and conjunctions, phrases, idioms, quotations and abbreviations. Cliches, platitudes, tautology, mixing Biblical, Talmudic and other styles from various periods of the Hebrew language's development in an inappropriate manner.

Confusions of style

Misuse of imagery and similes

Repetition.

1) Translators note: This poses special problems in Hebrew.

A general picture of the qualitative and quantitative mistakes in construction and linguistics of the compositions emerged from these checks. This in turn enabled us to prepare the exercises for improving written expression which were to be used in the forthcoming stages of the research experiment.

B) A number of teachers then prepared sets of exercises which they tried out at random in various schools.

The exercises were built around the following points: linguistics, stages of organization of written work, opening and concluding paragraphs and the reading and analyzing of articles intended to enrich the thought of the pupils.

Upon the conclusion of the pilot project, we began work on the research experiment proper. The needs of research and the limitations imposed on us by shortage of time and money, plus the need for defining and limiting the aims of the experiment, led to a decision to isolate two aspects of written expression and to try out methods for the improvement of their teaching. Each aspect was thus treated as a subject in itself, in two stages, each of which lasted for a complete year. Of course, there are other aspects of both written and oral expression which we omitted from our program and which are of no less importance than those with which we dealt (thus, for example, we excluded the writing of summaries, reports, letters, etc.).

The subject chosen for the first stage of the experiment was "the structure of the composition". Here the major emphasis was placed on offering pupils a system of work which should take account of all the various stages, with attention also paid to the different problems emerging in the course of writing: the assembly of the material (the idea store, adherence to the subject), working out a plan, division, development and connection of paragraphs, the opening and concluding of the composition, etc. This stage of the experiment was carried out during the years 1961-1963.

Linguistic questions in written expression formed the subject of the second stage. Here the emphasis was laid on clarity on the part of the writer. The work was concerned with helping the pupil to clarify his thought and his expression, both in individual sentences and in inter-sentence construction, with style, and with the various methods for clarifying ideas. The second stage of the program ran from 1963-1966.

STAGE A

STAGE "A": THE EXPERIMENT TO IMPROVE THE TEACHING OF
COMPOSITION-STRUCTURE

THE AIMS OF THE EXPERIMENT

The basic assumption which we wanted to examine during the experiment was that it was possible to improve written expression through the use of directed teaching methods:

- a) We assumed that systematic teaching would be more efficient than that lacking in system.

Acting on this assumption, we prepared a method for teaching different aspects of written expression. The various aspects to be dealt with were decided upon on the basis of the checks made into those errors which had been discovered in the compositions written for us by pupils taking part in the pilot project. It was upon these various categories of mistakes that we then planned the different exercises, scaling them to the levels of the participating classes. From the results gained by teaching along the suggested lines of the program, we wanted to check the following questions of more limited nature:

- i) Does the proposed system lead to better results?
- ii) With regard to which aspects is this systematized type of teaching far more efficient, less efficient, or inefficient?
- iii) What relationship exists between progress made in the

various aspects? Is progress in the learning of one aspect paralleled by progress in the study of another? And, as a subsidiary question: does the systematized teaching of composition construction lead to improvements in linguistic achievement, even when the latter are not being specifically taught?

- v) Is there any relationship between the point from which the pupil starts and the final level of his achievement?
 - vi) For what type of pupil (weak, average or good) is the proposed system most useful, and to what extent?
 - vii) To what extent does the pupil's cultural level (measured by his vocabulary) influence his progress?
 - viii) What differences exist between the usefulness of this system of teaching as applied to pupils born in Israel and to immigrant pupils (having regard to the number of years they have been in Israel)?
 - ix) Are girls or boys more likely to succeed in studying under this program?
 - x) For what grades is the system most useful? (The exercises for grades 9 and 11 were constructed along the same pattern, though they were appropriately graded for difficulty.
- Subjects dealt with were: functional compositions and matters relating to their construction. Thus we wanted to prove the assumption that this system did work, and thence,

if it could be proved, we would be able to point to the important conclusion that the teaching of such composition writing should in fact be begun at the very beginning of secondary school education.)

- b) These aims aside, the research project had three quite practical aims:
- i) To rouse teachers out of the feeling of disillusionment which most of them had regarding the teaching of written expression.
 - ii) To demonstrate that it is possible both to teach and learn written expression as a school subject enjoyable for both pupils and teachers alike.
 - iii) To supply teachers with teaching aids for their work, to awaken them to the method of systematized teaching and to encourage them to search out their own additional exercises.

THE EXPERIMENTAL EXERCISES

Class experiments relating to Stage A of the program were carried out during the 1962/3 school year. Implementation of this stage was preceded by several months of preparatory work whose main function was the compilation of work-books containing exercises concerned with the content and structure of a composition. The work-books were also based on the individual exercises worked out during the pilot project. Their content took into consideration the opinions and suggestions of those teachers who had used them in the classrooms and also consisted of a large body of additional material, specially

worked through for this purpose, and drawn from the results of the classified mistakes abstracted from the compositions written during the pilot scheme.

Because of the extent and detail of the exercises, we shall only cite here the details of their overall construction and their general form.

In the first stage the exercises were concerned with the following points: the paragraph, its unity, construction and connection with other paragraphs. Moving from the paragraph to the whole composition, exercises were added on adherence to the subject, enriching the content, its organization, the writing of a plan for the composition, writing key sentences for the individual paragraphs or ideas, opening and concluding the composition.

The following is a description of the exercises set to develop these subjects.

Part A: THE PARAGRAPH

1) Paragraph Division

Class Exercise: "A member of the class has not done his homework because of a power failure. How can he convince the teacher that such is in fact the reason?" A confusion of excuses packed into one paragraph is likely to damage the case One draws the conclusion that for each idea there should be a separate paragraph.

Exercise 1: The division of a given extract into its various paragraphs, and the noting down of the subject of each paragraph. (Avoiding the writing of titles).

Exercise 2: Pupils were presented with two short, journalistically

titled paragraphs. They were asked to write explanatory titles to clarify their content. The passages read as follows:

"Bon Appetit!"

"Warm some milk and to each serving add a spoon of honey, a spoon of sugar, and two spoons of raspberry juice. To this milk-drink add cubes of semolina prepared from thickened and cooled semolina pudding. Serve very cold -- your family will thoroughly enjoy this new desert."

"Where are you going?"

"Beware of careless drivers. They are in so much of a hurry to transport their passengers to the next town or the next country, that all too often they succeed in sending them into the next world!"

Exercise 3: Pupils are asked to divide a given chapter of the Bible into its various paragraphs and to write a summary of the contents of each.

Exercise 4: Pupils are given a composition in which the paragraph division is clumsy. They are asked to make the necessary corrections, writing the main point of each paragraph in the margins, or underlining the key sentence in each case.

Exercise 5: Pupils are given a paragraph in which the sentence order is confused. When they have clarified the point of the paragraph for themselves, they are to rearrange the sentences in a clear and logical manner, combining a number of sentences into one unified sentence should there be such a need.

Class Exercise: Free composition written in class. In correcting this work, special evaluation will be made of paragraph division and correct indentation.

2) **The Major Idea and its Place in the Paragraph**

Class Study Examples of different paragraph constructions and the location of the central idea in each case.

Exercise 1 Pupils are given an article which has been divided into paragraphs. They are asked to find the principle sentence in each paragraph, to identify its position and to explain why they think the writer placed it there. They are then asked to try writing two paragraphs, each differently constructed.

3) **Developing an Idea Into a Paragraph**

Exercise 1 The pupils are given a paragraph in which the same idea is repeated in different words. They are asked to point out the faults in this paragraph. When they identify the central idea of the extract, they are asked to develop it in their own manner.

Class Study

The various ways of developing an idea: through explanations, through examples, through comparison and through definition.

Exercise 2

Three paragraphs are set for study. In each case the pupils are asked to write down the central idea and to note its position in the paragraph. They are also asked to explain, in each case, how the idea is developed throughout the section. The following was one of the paragraphs set:

'Some mothers, through over-concern with creating a well protected world for their children, succeed rather in filling their child's world with unnecessary fears. This morning, while I was in the clinic, I noticed a mother with her little daughter. The little girl was fascinated by what the doctor was doing, by the bottles of medicine and by the hypodermic needle plunged into someone's arm. But her mother immediately dragged her away and covered her eyes: "Don't look at the doctor while he's giving injections." As a result of this type of behavior, the little girl now has yet another, and quite unjustified fear to contend with -- the fear of doctors and injections.'

Suggested Additional Exercise

The teacher suggests three or four news "headlines"

to the class. As news-editors, the pupils will be asked to develop them further as items for broadcasting.

Class Summary

The major points in paragraph structure:

- a) For every paragraph -- one idea;
- b) The paragraph is to be crystallized around that idea -- with no digressions, repetitions or sudden switches of ideas;
- c) Variety is possible through use of the different ways of paragraph-construction;
- d) The different ways of developing an idea also aid variety.

This section of the exercises concludes with the holding of a class trial. A prosecutor and defence council are chosen and prepare the key points for their respective cases, these are then shown to the teacher (as a check that the work is in fact prepared in advance). Small teams of pupils will develop these ideas, with the work read out by representatives of both sides. In handing down judgement notice will also be taken of the manner of presentation.

4) Connecting Paragraphs

Exercise 1 Underlining of the central ideas in a given extract together with the connecting links.

Class Study Discussion of the location of the links and on their type (stylistic, chronological or logical connections used).

Exercise 2

The pupils are asked to compile a list of central ideas on a given subject and to indicate how they might be connected.

Exercise 3

The above work is then developed into paragraphs and a complete composition.

In marking the composition, the teacher was asked to allot 40% to correct paragraph division and structure, 30% to the manner in which the paragraphs have been connected, and a further 30% to ideas and style. The exercise work-books were accompanied by guide-lines for the teachers in regard to marking.

PART B - ADHERENCE TO THE SUBJECT SET AND THE ENRICHMENT
OF CONTENT

Thus far the exercises were concerned with the crystallization of a paragraph and with connecting links between the paragraphs. The next stage deals with "building the structure with the bricks at our disposal", beginning with the choice of the appropriate bricks: i.e. choosing the ideas which fit the subject to be written about.

1) Adhering to the Subject¹

Exercise 1

Pupils are given a written passage in which are included certain sections which are unconnected with the subject -- these must be identified and removed.

- 1) It now seems to us that we erred in the ordering of this section. It would have been better to start with the exercises dealing with the assembly of information (i.e. enrichment of content), following this with the points about adhering to the subject, for the issue of choice logically follows that of first obtaining the material from which the pupil can make such a choice.

Exercise 2 Pupils are presented with a list of ideas which were written down in draft form just as they occurred to the writer. They are asked to cross out those which do not belong to the theme on which the writer was asked to write.

Exercise 3 Pupils are given compositions written by other pupils. They are asked to cross out those ideas which are unconnected with the set subject and to delete repetitious ideas. Finally, they are to re-write the composition, paying particular attention to suitable connections between the various sections. (In writing the work again, pupils are warned to take special care with paragraphing. This is a revision of the work learned in Part A.)

2) Enriching the Content

While it is difficult to correct faults relating to paucity of content, nevertheless we thought it worthwhile to draw pupils' attention to the possibility of this failure in their compositions.

Later in the course of the program, we suggested an alternative way in which pupils might be helped to improve this matter (using paragraph-headings as an initial point of departure).

Exercise 4 Two compositions are presented to the pupils, the one poor in ideas, the other richer. They are asked to ascertain the differences between the two,

and to add their own ideas for enrichment.

Exercise 5

Pupils compare the compositions of two other pupils, listing advantages and disadvantages — from the point of view of content — in the margins, (When do the words used really signify important ideas, when are they empty of all content; is the work over-rich or rather lacking?)

Pupils of the 11th grade were asked to make a new list of the ideas appropriate to the subject and to add their own ideas.

Summing-up
Exercise

Working either at home or in the library, pupils were asked to gather together material for a composition on a given subject (this exercise included instruction on the use of libraries and source material). The information was examined in class with attention paid to the richness or paucity of its content. As a transitional stage in approaching the problems of arranging the material, the class was asked to present its own suggestions for correct arrangement.

PART C -- THE ARRANGEMENT OF IDEAS IN COMPOSITION

Exercise 1 Pupils are provided with ideas for two composition subjects (as these were written in draft form).

They are asked to number them in the order in which they should be dealt with.

Class Exercise

The pupils are asked to suggest ideas which fit a given subject. These are written on the blackboard in the order in which they are raised. During the course of discussion as to their correct order of appearance in a composition, they are subsequently renumbered accordingly.

Exercise 2 Pupils are asked to write a composition. The class then discusses which was the best arranged. How was it constructed? As homework, the pupils then rewrite the compositions in the light of the discussion as to the correct ordering of the paragraphs, deletion of unnecessary details, and correction of flaws in logic (the latter become obvious to the pupils as they see how their work should be arranged into one complete unit). Paragraphs which seem unclear are to be completely rewritten.

Exercise 3 (For Grade 9) Pupils are presented with a number of different ideas to be included in a composition, they

have been written down in draft form, just as they occurred to the writer. Among them are repetitions and some which do not belong to the subject. To the extent that some of the ideas seem contradictory, it should be emphasized to the pupils that this is not a matter of careless thinking, the intention was rather to draw attention to the conflict of thought and thus attempt to solve it. The pupils are asked to study these ideas and decide whether or not it would be possible to write a composition based on them. They are to delete, change and add, and then to arrange the material in the correct manner, to explain the principle underlying their suggested arrangement, and to consider ways in which the various points might be suitably connected together.

(For Grade 11) The pupils are given a number of passages abstracted from an article. They are asked to arrange them in a logical manner. The pupils will see, as they do the work, that they must first organize the passages into groups, and only then decide on the overall order.

Summing-Up

Exercise Composition to be written in class. Preparation

should include the putting forward of ideas, clarification of what is relevant in them, numbering them as they appear in draft form (the draft is to be handed in together with the completed composition).

PART D - WRITING HEADINGS

This stage of the program suggests two methods of composition writing that may be adopted by the pupils. The first is built around the collection of material and the putting forward of ideas, after which attention must be paid to their arrangement, to the building of a plan, followed by the actual writing which, in turn, must be followed by a check-through of the written work.

The second method starts from the preparation of a plan which, in turn, is arrived at by dividing the subject into its various component parts. These must be arranged under major headings (the broad lines of the components) and minor headings (the core of each paragraph), only when this has been accomplished can the plan be further detailed to serve as a basis for each idea, and if necessary, as a guide in the search for further information.

Which system shall be chosen depends both on the writer and on the subject of the composition. But both should be familiar to the pupils.

Early sections of the program have already dealt with the first method. Exercise 1 in this section is intended to lead the pupil towards the stage of writing the necessary headings.

Exercise 1 In subjects previously suggested for compositions, pupils have already dealt with the problems of collecting their ideas. They must now choose two of the subjects previously dealt with and, using the material already collected, work out headings which are to act as guide lines for a composition. An explanation of the connections

existing between the various headings should also be included.

Exercise 2 (For Grade 11) Class discussion on how one may arrive at ideas without any material. As a result of appreciating the difficulties as they are raised in class, the teacher will then suggest that the second method of writing might be adopted. An experiment along these lines is conducted in the classroom: pupils will suggest the various aspects which should be covered in a composition on a given subject. The teacher will write major headings (i.e. the aspects) and minor headings (those affecting the ideas to be expounded in each paragraph) on the blackboard. This exercise is also used for Grade 9.

In the case of pupils in this class, they are given a poor composition written by a pupil of the same grade. The class is asked to discuss the question of which aspects of the subject were omitted, and to put forward suggestions for expansion. Following this, they go on to take part in the class experiment as detailed above for Grade 11.

Exercise 3 Using two of the previously worked over composition subjects, pupils divide the subjects into their various aspects, write major and minor headings.

Exercise 4 A composition to be written on a given subject.

Summing - Up Each pupil chooses the method of planning which he prefers, handing in the plan, together with the composition.

Method 1. The material is collected and sorted, arranged in numerical order as it will finally appear, headings are written, the composition is completed and checked.

Method 2. The subject is broken down into its component parts, major and minor headings are written, the ideas are detailed in each paragraph, the composition is checked.

PART E. DIFFERENT CONSTRUCTIONS FOR COMPOSITION

In the exercise summing-up the last section, pupils were presented with the problem of structuring the composition. They will already have asked themselves which points should be mentioned first, and which should come later. When the compositions are read out, pupils should be encouraged into a discussion of the influence of this "editing" as it affects the reader.

The aim of the exercises in this section is to show the pupil that there exist several possible ways of constructing the composition in such a manner that its content is clear and organized and that it achieves its aim — the clarification of an idea or the convincing of the reader.

Exercise 1 Pupils are asked to analyze an article by writing major and minor headings and listing the points which connect the various sections. The class then discusses the way in which the article was constructed (both in general and in detail). The discussion then turns to the question of

different methods of construction. Suggestions are listed on the blackboard together with the appropriate diagrams as drawn in the teacher's handbook for these exercises (e.g. general statement followed by detailing, details and generalization, generalization-detail-generalization; arguing from easy to difficult; from difficult to easy, chronological order; developmental method; pro and con.)

Exercise 2 A subject is set and pupils are asked to prepare a plan using one of the methods of composition construction. They are asked to account for their choice of this method.

Exercise 3 Analysis of a set article. Grade 9 is set an article along the lines of generalization followed by detailing. Grade 11 is set a more complicated pattern (suggestions are given to the teacher).

Exercise 4 As above. Grade 9 is set an article constructed along chronological lines. Grade 11 pupils are asked to choose an article from the newspaper, to analyze its construction and, if necessary, to suggest remedies for any faults.

Exercise 5 Pupils of Grade 9 write a composition on a given subject using the construction which works from details to a generalization. Those of Grade 11, in accordance with their own choice.

PART F. OPENING AND CLOSING PARAGRAPHS

Exercise 1 The class writes the opening paragraph of a composition on a given subject. The exercise is intended as a fore-runner to the work of this section. Some of the work will be read aloud in class. The teacher will sort the paragraphs into categories and explain these later . At the end of this period of class discussion, pupils will list on the blackboard the various types of opening paragraph. (The explanatory booklet for the teacher suggests examples of the various types - the explanatory, opening, that which defines the scope of the composition, the method of surveying the subject in a general manner; the descriptive, the quotation, or the saying).

Exercise 2 Pupils are given various opening paragraphs for a composition on "The Pros and Cons of 'Salon' Groups".¹ They are asked to state to which type the various paragraphs belong (teachers are given other suggestions taken from "The Art of Composition", by Y. Peretz -- see bibliography).

1) Translators note: This is an Israeli concept reflecting the choice currently presented to local youth: membership in an organized youth movement, which frowns on such pastimes as ballroom dancing, etc. or membership in the so-called 'Salon' circles, i.e. smaller individual loosely organized on a basis of personal friendship where the main form of association is through private parties held in the parental homes, etc.)

Exercise 3 Activating the pupil. Pupils are asked to write various types of opening paragraphs on a given subject.

Exercise 4 Classwork. Grade 9 is given two different opening paragraphs written by a pupil. Grade 11 is set four opening paragraphs from different articles. The class evaluates these according to a set of questions. The class discussion concludes with a listing, in summary, of the principles which govern good opening paragraphs. Following this discussion, the class then discusses the possible types of concluding paragraph. (The teacher's handbook makes a number of suggestions on this point: conclusions to be drawn; stating of a position; outlook for the future; description; quotation of saying; further examples — see Peretz, above).

Exercise 5 Pupils are asked to write suitable concluding paragraphs for compositions as set in exercise 3. Our intention was to show the pupils that they can create a workable framework for a composition by writing co-ordinated opening and concluding paragraphs, though, of course, there does not always have to be such an agreement between the opening and concluding paragraphs).

Exercise 6 Pupils are given two compositions written by fellow pupils. In the one case a number of concluding paragraphs have been written which repeat information given previously — the

second lacks a concluding paragraph. The class is asked to point out the mistakes and present suggestions for suitable concluding paragraphs.

Exercise 7 Pupils are asked to find four newspaper articles showing different types of opening and concluding paragraphs. (They are directed to different types of articles and reports). They are then asked to answer the following questions:

- a) To which type of opening (closing) paragraph do the chosen paragraphs belong?
- b) Does the paragraph fit the article as a whole?
Is it connected with the article in an organic manner? (The questions relate both to the opening and concluding paragraphs.)
- c) Does the opening paragraph succeed in its aim of attracting the reader's attention? Does the concluding paragraph succeed in either convincing the reader or awakening in him further thought on the subject?

In class discussion, the teacher also should draw pupils' attention to merely stupid or cheap opening paragraphs which simply irritate or else lead the reader to a feeling of dissatisfaction with the article as a whole.

Exercise 8 This exercise serves to activate pupils to use already learned material. They are asked to write a full opening paragraph, headings for the main body (both major and minor) and a concluding paragraph for a composition on a given subject.

Exercise 9 Summary of the structuring of an article by means of analysis along the following question-lines:

- a) To what category do the opening and concluding paragraphs belong?
- b) What is the connection between the opening and concluding paragraphs?
- c) What is the structure of the article as a whole?
(Write headings, underline - within the article - the connecting links between various sections).

Exercise 10 Composition set for homework to sum up everything learned since the beginning of the year. The subject chosen to be taken from material being studied by the pupils. In teacher's evaluation separate marks are given for a) the subject and b) its written expression. The pupils are given all the inclusive suggestions, reflecting everything so far learned.

When the exercises in the work-books have been worked through, the teacher is presented with a number of suggestions for summing-up exercises: one or two lesson periods to be devoted to comments on the last composition set in the books; selected pupils' compositions to be used as examples -- both positively and negatively- of the various principles learned so far -- after each example has been read aloud in class, the pupils should be helped to draw their own conclusions and compile a list of governing principles, in order of their importance, these are to be written first on the blackboard and later in the pupils' own exercise books. This latter point is important in helping them obtain an overall picture of the year's work.

As a second stage, pupils can look for various articles (in the newspaper, in magazines and in books) which can be analyzed and evaluated both in class and for homework. In each case, they should be drawing on the principles already established in the course of this year's study. The teacher too, should suggest a good interesting article which can be used as an example of the best type of work, in that it exemplifies the points discussed (suitable books from which to choose such articles are suggested to the teachers).

The work-books were so arranged that at the end of each section and its appropriate exercises, the pupils wrote a composition in which they were able to use the material dealt with down to that point. This composition, which was corrected and evaluated by the teacher, formed part of the year's regular work program. Thus, there were six compositions written, one at the end of each section.

In accordance with the individual needs of the class, teachers were free, when they saw the need, to make small changes in the exercises, to add to them or to cut them down somewhat -- but in making such changes they were asked to adhere to the main lines suggested. Subjects set for written work were also open to change, but in this case similar subjects were required to be set, and teachers were asked not to change the frequency with which such written work was required. Teachers indicated changes they had made when they completed the questionnaire circulated at the end of the year, they were also asked to supply information on which sections had been studied intensively and which only superficially.

Too many of the teachers participating failed to complete the work-books. It is possible to conclude from this that the body of material to be covered was too large and this despite the fact that not all the subjects dealt with had to be studied so intensively) but we are not sure that this was so. Some teachers managed to teach all the material, while in a parallel experiment, a teacher who knew the work-books well, succeeded in teaching the material intensively in a thirty-hour course, with scarcely any recourse to homework. Further, several teachers informed us that their lesson periods were cancelled for technical reasons.....one may also suppose that the quality of the work itself constituted an important factor for the teachers were as yet unused to teaching along the lines suggested.

The pupils' workbooks were accompanied by a special handbook for the teachers, in which some little guidance and explanation was given. From a pedagogical point of view, it would have been desirable to give far more

guidance to the teachers, both via courses and via auxiliary handbooks. However, from the point of view of this research project, it seemed to us that it was better to desist from giving more help to the teachers of the experimental classes, since doing so would have meant creating conditions differing from those that exist generally speaking, throughout Israel, and would also have put these teachers at an advantage as compared with those in the control classes.

THE PRINCIPLES DICTATING THE CONSTRUCTION OF THE WORKBOOKS
(DIDACTIC AND METHODOLOGICAL FOUNDATIONS)

The purpose of the workbooks was to teach the writing of functional, and only functional, compositions. But, at the same time, we were forced to take into consideration the fact that pupils of Grade 9 are unused to this type of writing in their composition classes. Thus, when choosing examples, we also made use of other material -- stories, descriptions and experiential writings.

The very basis of the workbooks was built on the idea of teaching functional composition along the lines of a complete system. Generally speaking, and this applies throughout the child's schooling, only isolated and totally disconnected aspects of composition writing are studied. Alternatively, teachers take the opportunity of correcting what mistakes they can when they return pupils' work. Our intention here, however, was to present the pupil with a real method (or methods), and with real stages of work, according to which he could proceed when writing.

Thus, the work-books were organized along systematic lines according to an ordered set of work-stages which differed from those hitherto familiar to the pupils.

What are the generally accepted ways of writing used by our pupils?

One method used is that of "straight" writing: the writer jots down all his ideas and develops them as he writes (or, as the pupils themselves put it, he "spills out" everything he can). Following this, the pupil copies out the rough draft, correcting the language as he goes along. The advantages of this method lie in the fact that it does not tie down the writer; it preserves the spontaneity of ideas and the resultant work has a certain freedom and gaiety. The disadvantage lies in the fact that this method usually involves the operation of the psychological factor of use of associations. While this may be an advantage in creative writing, in functional writing there is always the fear that the pupil will become involved in following the line of associations, diverge from the set subject, omit stages of logic in proving his point, repeat himself or forget ideas which he had intended to include at first -- all with the result that we shall arrive at the only too usual picture of such a composition: muddled ideas, a failure to proceed along the lines of any plan, written work which remains unclear to the reader.

Indeed, there are very few adults who have anything to do with functional writing or logical thought who are able to overcome the dangers inherent in "straight" writing when it is used on a wide scale. And how much more difficult is the task facing the school child.

Further, many children find great difficulty in settling down immediately to writing. The pupil may well know that he has something to say on the subject, yet he may not know how to approach the whole problem, even how to begin. We are reminded, in this context, of those pupils who will sit for ages in front of a piece of blank white paper, fiddling with their pens and not knowing how to write. On the last minute, they begin to write furiously, covering the paper with hastily scribbled, ill-constructed compositions.

Another method of writing, and one which goes a long way towards remedying the faults described in the above-mentioned method, is that which makes use of headings, of a plan worked out by the writer before he begins the actual writing proper. Many teachers do accustom their pupils to this method of writing headings, both major and minor; some encourage the pupils to work out the various spheres into which a subject can be divided and to divide it still further in order to help in the arranging of suitable headings.

This method is good only for certain specific subjects: those concerning which the writer does not know the details of the required material, but for which he can nevertheless determine various aspects and, having done this, then proceed to research the material. Thus, for example, if the pupil is asked to write about a country with which he is not familiar, he can nevertheless decide that he must include information on its geography, its economy, its social and cultural aspects, and on the interrelation of all these factors. Having done this, he can then proceed to find the information needed on each of these points.

The work thus produced will be logical and orderly; it will give adequate coverage to each aspect, it will not stray away from the subject, it will not omit points, nor will it be repetitious.

The faults of this method are precisely the advantages enjoyed by the system mentioned previously: i.e. spontaneity, straightforwardness and a certain gay quality will all be held in check. Many writers find themselves too restricted if they follow this method, they complain that their writing emerges in a forced manner. A further serious disadvantage is that this is not a method which can be used by the majority of writers, especially if they are young and inexperienced in abstract thought which, in any case, is most difficult for them. Not everyone can think in advance along abstract lines which will permit the formulation of a theoretical plan for a piece of work of any considerable scope. We are all familiar with the pupil who first writes his composition and only later adds a "plan" -- "just to please the teacher".

The method we have advocated that our pupils use is one that differs in its working stages from both those described above. This is, of course, not the only workable method. The subject, on the one hand, and the personality of the writer, on the other, frequently dictate the use of one of the two methods we have just discussed or even that of a completely different method.

We chose the method described below because it seemed to us that it would be good for both teacher and pupil alike. It permits of the fundamental treatment of and exercise in the various problems met with in written

expression. Our major reason for selecting it was that it seemed to be a good system for the pupil and for the untrained person generally, since it offered help in dealing with and satisfying the many demands made on the writer in the course of transcribing his thoughts to paper.

The stages of work which we proposed the writer should adopt were:¹

- 1) Think first about the subject and the reader for whom the work is intended; determine the aims of this piece of work.
- 2) Collect the material and jot it down on paper just as it comes to mind, or just as it appears in the sources being consulted. There is no need to sort the material or attempt to give it some final wording. Concentrate on quick listing of the content of the ideas and seeing that each idea is listed separately (on a new line in a limited piece of work, on a separate filing card in a subject which is of wider scope). Thus, one can avoid omitting important points as one might otherwise do in alternative systems.
- 3) Sort the material. Reject every idea that does not appear to be relevant or which is duplicated elsewhere in the notes.

1) There is nothing innovatory in these stages of work - they are quite commonly used in universities, where, for example, the writer becomes accustomed to assembling the material he needs with the help of reference cards, etc., and only then beginning the written work. In this research project we adapted this method, with the help of various exercises, to the special needs of the pupil. See also - Zimrion, Z., and Ariel, S., "The Art of Composition", in the bibliographical appendix.

4) Arrange the material. Group together those ideas which belong in the same section of the work concerned. Number the sections as they are to appear and the order of ideas in each section. At this stage, one proceeds to formulate the plan: the title of each section will form the major heading while the ideas occurring within each section will constitute the minor headings (thus they will not be mere empty meaningless titles, but rather possessed of real meaning and content). At this stage it is desirable to decide what links can be used to connect the various ideas together, for their logical arranging should, in fact, lead one to see the relationships¹ between them.

5) The writing itself. Ideas should be expanded into paragraphs and clarified by various means. (Later on we proposed to teach our pupils the use of such means).

6) Checking. Check the work from all aspects, especially with regard to the language used.

This suggested method attempts to preserve the best of both the methods previously discussed and at the same time to overcome the difficulties posed by both. Spontaneity and richness of associations are alike preserved, since in the initial stages the writer is urged to jot down ideas either as

1) An experienced writer can combine a number of these stages and work on them together. But from the point of view of teaching beginners, it seemed desirable to us to give them exercises in each separate stage and to pay individual attention to each of the various activities they are expected to perform.

they occur to him or in the order in which the material comes to hand without thought for ordering or formulating them in a final form. At the same time, the built-in checks of the method ensure that ideas do not get lost either in the course of writing or when the plan is being worked out. A logical framework is preserved, since the stages of working which are recommended to the pupil are those which pay attention to clarification, sorting and arranging of the material; this is also of assistance to him in maintaining relevancy, in achieving a logical arrangement and in connecting together the various elements which make up the work. Since, too, the whole plan of work makes use of ideas and facts which the pupil is encouraged to put forward on his own, the results are personal to him and to his tastes. Further, since the stage of collecting the material precedes the actual writing, the plan is no mere theoretical construction, weakened by headings lacking in content, but rather the reverse.

When the pupil has thus prepared the building materials and the blueprints are already in his hands, he is then in a position to settle to the actual writing. His mind is free to concentrate on the choice of methods which he will use to clarify his ideas to the reader and on the purely linguistic problems which must be solved. When he has finished writing, he is urged to check the work and correct any mistakes that seem to need further attention.

It seems to us that this method is likely to result in the writing of better articles and compositions, since, in the course of following

through the various stages, all the diverse elements of the written work are given their due share of fundamental attention: as regards content, logical arrangement and correct expression. Consider, for example, the way in which this method helps in solving the problem of adhering firmly to the subject: this aspect is specially dealt with while the writer is engaged in checking through the material assembled and sorting the points to be made. In the stage concerned with arranging the ideas for writing, he has yet another chance to hunt down the unnecessary detail, and this is again repeated when he checks through his work at the end. Following this method of composition-writing also facilitates the addition of further material which can be worked into the appropriate place at almost any stage.

The prime advantage of this system lies in the fact that it makes the work of writing far simpler for the pupil: it is much easier for him to master all the many different thought processes involved in such writing when he works in a number of virtually self-contained stages. Thus, for example, when he is primarily concerned with assembling his ideas, he is not required to think too, about their logical arrangement and the way in which he will give them written formulation, and when he is primarily concerned with this latter point his attention is free to concentrate solely on the problems therein raised.

We considered that there existed a real need to give pupils ample training in this method, since it is not one which is widely known or used in the schools. Nevertheless, the workbooks also put forward an alternative system: the writing of headings as a first stage, as described above. This second

system was proposed as an alternative, and was not as widely treated, since we consider it merely a supplementary method, and to some extent, as a control method for the one we propose. We assumed that only a very few pupils of the 9th Grade, and perhaps some few more of the 11th Grade would, in fact, be capable of writing compositions based on the preparation of headings written as a first stage of the work. On the other hand, we did not feel free to withhold knowledge of, or instruction in, this system. In the last analysis, everything depends on the writer and on the subject, and it is always possible that the second system would prove of help to some pupils.

Pupils progressed from stage to stage by utilizing previously learned knowledge and by revision of earlier material, with each stage built upon the one preceding it. At the conclusion of each stage, a comprehensive summing-up exercise was set, generally speaking the writing of a complete composition. Thus, during the course of the year, six such compositions were written and the pupils learned to weld together the various components with which each exercise had dealt in detail. At the end of the year, they were set a composition of broader scope which was to be done as homework. It was this which served to sum up the whole year's program.

There were, of course, subjects which we would have preferred to devote more attention to, and to give more practice in, as issues in themselves. Thus, for example, pupils did not really spend the proper amount of time on analyzing the structure of articles given as examples from the point of view of considering such analysis as one of the ways which could be of help in gathering material from the available sources. We were forced, in this instance, to rely on the fact that the writing of headings is an issue

to which some considerable attention is devoted as it affects other subjects on an elementary school level. It would, too, have been advisable to devote more lesson time to giving the pupils instruction in the correct and full use of libraries, and to subjects which must be written about in a more extensive manner. Nevertheless, we decided to teach these sections even if it meant doing so only on a limited scale (had we tried a more widespread treatment of every issue we would not have succeeded in including everything that seemed necessary), since we felt they constituted part of the whole framework of construction, and since it seemed important to give the pupils an overall view of the complete structure in all its stages in the course of this one-year program.

An important principle underlying the make-up of the workbooks was that concerning the interplay of analysis and synthesis: the perception of a fact and its development: the more passive form of activity involved in analysing a text, followed by the more active participation of the pupil when called upon to write, i.e. both the process of fragmentation and the subsequent process of construction.

There can be no disagreement as to the fact that it is advisable for the pupil to be presented with a well-written text for such analysis, and that this should help him in formulating the correct conclusions to serve as guide-lines for his own writing. The question we asked ourselves, however, was whether he should also be presented with texts which needed correction. There are some who claim that any bad material, even when it is presented with the intention that the pupil may identify and correct the mistakes, can

only harm him, and may, in effect, serve to give even stronger root to such mistakes. Yet others claim that even if this is not the only method open to use, it is still one which is useful in teaching pupils how to correct faults and that, further, the text is usually too long to be remembered in any significant way.

The workbooks include texts of both types, since we were unable to elicit any definite and unified answer to this point, neither as it concerned the principle involved, nor as regards the proportion of one to the other. We decided to discuss this issue when we met with the teachers who were using the texts, and thus obtained their views on the subject.

Variety is important as regarded from the point of view of methodics and not just as it affects the swing over from analysis to synthesis. We tried to inject variety in relation to the type of exercises used, the sources and the texts suggested, the inclusion of both easy and more difficult material, and the use of humorous and entertaining matter.

DETERMINING THE SAMPLE

In carrying out the experiment we tried to choose a group of classes that should be as representative as possible of secondary level education in Israel. We chose schools from the following different trends: academic high schools of varying levels, vocational high schools, two-year high schools (age 14-16), and high schools in kibbutzim. The selection of these schools was made with the help of lists of secondary schools and Hebrew teachers working in them supplied to us by the inspectorate division responsible for secondary

education in the Ministry of Education and Culture. The selection of schools within each category was made at random.

The Grades chosen for the experiment were 9 and 11, i.e. they represented two clearly defined stages of development in secondary education.¹ To round out the picture further, we ran a second experiment of a more limited extent using pupils of Grade 10, but due to circumstances beyond our control, the experiment had no real value.

The teachers taking part in the experiment also represented a fair sampling of the overall teacher-population of the local secondary schools (even if not, perhaps, in exact proportions). They included experienced veteran teachers and beginners alike, both good and average, both those gifted in the teaching of written expression and those not specially interested in the subject. Participating teachers did not receive special training in the art of expression, since we did not want the possible success of the experiment to be credited to the account of any individual teacher's personal development in this sphere. We confined ourselves to the written material given to the teachers, intending it to serve as the objective tool. The very fact of participation as an experimental class constituted of itself a push forward, but to some extent the control classes were also given a

1. (Translator's note: Education in Israel is compulsory for all children between the ages of 5-14, the first year being a kindergarten year. Secondary education, and the transfer to a new school, begins at 14 and continues through four classes to the age of 18 -- but there are also secondary schools which provide only two or three years of such post-elementary education. Financial help is given in accordance with the parental income and is dependent upon the child's passing an academic fitness test taken during the final (8th) Grade of elementary school.)

similar push, since the experiment aroused the teachers of these classes to further thought and to paying greater attention to the various problems of expression, with several of them making up their own exercises for use in the weekly composition lesson.

The choice of schools and teachers, even while it did not form a perfect sample along scientific principles, nevertheless ensured as faithful as possible a sampling of the overall school and teacher position. A pupil's progress in written expression must be credited in part to the teacher's ability, in part to the pupil's natural development, to the influence of reading, to other lessons and to further factors. All these factors were at work equally as regards the experimental groups and the control classes in which the experiment did not operate; thus conditions in both were identical. A variable which had to be considered was the initial level of the different pupils. It was in order to reduce the importance of this factor as one which might be decisive that we adopted the method of sampling as described here.

Sixty teachers were enlisted as participants in the experiment. The large number of pupils affected was decided upon in the light of the assumption that, for a variety of reasons, several classes would drop out, and we wanted the sample to be as large as possible. Further, the classes chosen then had to be divided into experimental groups and control classes. In each class, only one quarter of the pupils were chosen for the sample in accordance with a table of random numbers.

Prior to the beginning of the experiment, the pupils all wrote compositions which were analysed and assessed by our own examiner. It was in accordance

with these results that we arrived at a level of equality between the experimental classes and the control groups both from the point of view of the initial level of the pupils and from the point of view of the distribution of marks in each class. In order to achieve this levelling of the two groups, we were forced to take some classes out of the experimental group, since we could not find them matching partners from among the control groups; the same applied, too, to the removal of some classes from the control groups.

In the course of the year, a number of classes withdrew. The number was further reduced at the end of the year. Some individual pupils who had been included in the sample failed to write the second composition, while some of the teachers omitted to send us pupils' compositions as written at the end of the year. Since we could therefore not measure the extent of progress made during the year, these classes too were removed from the sample even though they had participated throughout the course of the experiment. It is of interest to record that in comparison with those classes which did not drop out, the majority of those which fell by the wayside had a relatively low standard. It can be assumed that it was just this reason, among others, which influenced the teachers of these classes in their decision not to submit the second composition. Relatively speaking, the drop-out among the control groups was higher than that experienced among the experimental groups. A similar phenomenon was encountered when it came to asking the teachers of the control groups to fill in mark sheets for their compositions. One can assume here that the teachers of these groups feared that the standard of their work would be thought lacking. But this is an occurrence frequently remarked on in research work: control groups generally speaking show less interest in

the experiment and are less inclined to meet the requirements made of them.

In assessing the results, we did not include those derived from the classes of the kibbutzim, primarily because these classes came into the experiment at a considerably later date.

We thus had to complement the number of pupils in the sample chosen at random from those who were not picked at and only then were we able to rebuild the sample on a level of equality as regards the initial standards maintained by the control and experimental groups. This standard was determined by the pupils' achievement as examined from two aspects of the compositions written at the beginning: paragraphing and connecting paragraphs, and style. Following this, the sample was also examined from the point of view of the language used, and a correlation was proved between the standard of paragraphing, linking and style and the standard of language used. The average initial mark in the experimental groups was 6.62, while in the control groups it was 6.64. Finally, 14 Grade 9 classes, and 5 Grade 11 classes, were chosen as experimental groups. 5 Grade 9 classes and 6 Grade 11 classes participated as control groups. In the sample representing these classes, there were 97 pupils drawn from Grade 9, taking part in the experiment, while 42 Grade 9 pupils served as controls; 30 Grade 11 pupils participated in the experiment, with 39 Grade 11 pupils acting as controls.¹ The principals of the schools concerned,

1) This proportion of experimental to control pupils in Grade 9 meets statistical requirements, and it was later taken into consideration in the calculations.

together with the teachers of the respective experimental and control classes, undertook to devote one lesson period per week to written expression.

Objectivity was assured by the fact that the experiment was carried out under normal conditions, in average schools with average teachers and average pupils.¹

It was only after these preparations that the research experiment proper began, with the experimental classes having a year's tuition in accordance with the plan laid down by the workbooks, while the control groups continued to study along the normally accepted lines.

GATHERING THE DATA

1) Questionnaires, tests, and compositions

A number of different tools were employed to help us in gathering all the data.

a) In regard to teachers: Teachers were issued with questionnaires and mark sheets for all six of the compositions that we required their classes to write in the course of the year's program.

b) In regard to pupils: Pupils' vocabulary ranges were examined and certain personal details listed.²

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- 1) On problems of creating equality of conditions see, for instance, Linquist, "Statistical Analysis in Educational Research," pp. 13-14.
 - 2) (Translator's note: this is an important point in Israel, since the children may be drawn from very diverse backgrounds which reflect Israel's mass immigration from approximately 70 different countries.)

Our main aim, checking into the achievements in written expression which might be reached with this system of teaching, was reached by examining the initial composition and the one written at the end of the program.

a) Teachers in both types of classes were issued with questionnaires asking them to supply us with personal information, with details relating to their methods of work in the classroom, on the sections of the workbook which they had taught intensively, on those which had been dealt with only superficially and on those which they had omitted to cover. Teachers were also asked to express their opinions on the various exercises and on the method as a whole. They were further asked to give their impressions as to the progress made by the pupils under this system and on how they considered they had reacted to it. Teachers were also required to fill out mark sheets on which they recorded the mark given for each of the year's six compositions written at the conclusion of each of the workbook's different sections. Marks had to be detailed as they related to various aspects of the work, with the different factors involved, determined as they had been during the pilot project:

Content: richness of ideas, adhering to the set subject.

Structure: opening and concluding paragraphs, paragraphing and making connections between the paragraphs, logical arrangement of material.

Language: use of words, conjunctions and prepositions, structure of the sentences, punctuation, style.

The mark sheets were intended to help us in assessing the on-going progress made by the pupils in the course of the year. They were further intended to

act as a check between the assessments made by the teachers themselves and those of our own examiner. (It should be pointed out that the teachers of the control groups failed to fill in these sheets).

b) Every pupil was given a vocabulary test. With the help of this test we were able to determine the progress made by the pupils as compared with their initial level from the following points of view: the extent of their linguistic ability, their general cultural level, and, to some extent, their intelligence level -- for there is a great correspondence between achievements recorded on such a vocabulary test and those given by an I.Q. test.

Pupils were asked to state their sex and their year of immigration to Israel so that we could establish whether there existed a connection between these details and the general extent of their progress in the study of written expression.

2) Checking the Pupils' Compositions

In order to check the level of progress achieved by the pupils studying along the lines laid down by the program (the experimental groups) as compared with those who continued to use the normal methods of study (the control groups), both groups wrote compositions at the outset of the experiment and at its close. After the compositions had been evaluated, a sample was taken (see above-- p. 68) for the purposes of analysis, assessment and comparison of the first with the second composition.

In the marking of all compositions, a separate assessment was made in regard to each of the following aspects: content -- richness of ideas and adherence to the subject set; construction -- opening and concluding para-

graphs, paragraphing and joining the paragraphs, logical arrangement of material; linguistics - use of words, prepositions and conjunctions, structure of the sentence, punctuation, style.¹

The reliability of our own examiner was checked by giving him a number of compositions to reassess after a lapse of four months, and then again after a year. The different assessments showed a strikingly high correlation: after four months: 0.94, after a year: 0.69 (significance 0.01%).

The correlation testifies to a satisfactory level of consistency in the assessments. Such a unified standard of judgement ensured that the differences in the level of achievement as recorded before the experiment and on its conclusion would, in fact, determine the progress actually made rather than simply reflecting random changes in the standard of marking.

3) Comparison of Teachers' Assessments and That of Our Own Examiner

In order to round out the picture obtained by an impartial checker, it is generally desirable to have the work assessed by other examiners. We ran a check on all the teachers' assessments (including those not included in the five classes cited in the section "Progress Recorded as Assessed by the Teachers" - see p. 77), comparing their assessments with those of our own examiner in regard to each and every pupil. The results bore out what is generally known regarding the issue of composition assessments: there was no correlation between the two assessments.

We give below some details which, while not being statistically conclusive, nevertheless may perhaps cast light on the method of comparison that we used. As regards content -- there did exist a

- 1) These criteria were used in marking both by the teachers and the examining team nominated by the research project.

correlation in respect of assessments for those pupils who had obviously progressed well, no correlation existed as regards weak pupils, and in respect of the middling pupils, the extent of correlation was 2/3. As regards structure -- here there was no correlation at all between the assessment of own examiner and that of the teachers with respect to the level of progress registered (there did, however, exist a general agreement along overall lines -- there had been more progress as compared with retrogression or simply maintaining a former level -- but even here there were disagreements with regard to certain pupils). A very low level of correlation existed with regard to linguistic criteria. Where progress had been achieved, both the teachers and the examiner seemed in agreement, but there were disagreements with regard to those whom, it was felt, had regressed.

Of course, it is possible that the discrepancies in assessing the different criteria are due simply to the commonly found disagreements which exist between any two markers of such work. But it is also possible that the lack of correlation may spring from the teacher's lack of consistency in assessing the work (the consistency of our own examiner has been sufficiently established and verified - see p 72). It is also possible that some of the teachers were as yet insufficiently accustomed to dividing the overall mark into its various aspects and that they did not make strong enough demands as regards, for example, the structure of the work, as in fact they were asked

- 1) As one teacher wrote to us: "I don't know if these marks -- as assessed according to different aspects -- are really objective. Retrospectively, it is now obvious to me that I should have given lower marks on the first compositions, for as the year has advanced, so have my demands increased."
- 2) See the explanation to the table for the section "Progress as Assessed by the Teachers".

to do in their handbooks.

Statistically speaking, there exists, too, a problem with regard to the examinee: many different circumstances may operate while the pupil is writing, and all or any may show their influence in the composition chosen for the type of comparative assessment described above.

Ideally speaking, in order to obtain really reliable results each pupil should have written between 4 and 10 compositions prior to the beginning of the research, and the same number on its conclusion, thus we would have been able to obtain a really correct average picture of his work. But, of course, under actual teaching conditions this is an impossibility. Thus we were forced to make do with the writing of one composition at the beginning of the year, and a further one at the end of the experiment.

RESULTS

What then, were the findings resulting from the information received and worked through?

A. We shall begin with a general survey of the progress registered by the experiment classes and control groups as this showed up in the assessments of the teachers; following this we shall proceed to compare this general view with the overall picture as this is illustrated by our calculations. We shall then go on to detail the progress achieved in regard to the various aspects of the subject, to analyse the results and to put forward some conclusions.

B. Having discussed the findings concerned with the progress made by pupils in both the experimental classes and the control groups, we shall then pass on to consider those findings relating to the connection existing between the various aspects of written expression:

- a) What connections do exist between various aspects and in which group (experimental or control) do the connections seem to be strongest?
- b) Is progress registered in one aspect connected to that registered in another?

C. Finally, we shall move on to a consideration of various factors concerned with the teaching of written expression which must be particularly taken into consideration when examining teaching methods: we refer to such issues as

the pupil 's educational level, the age at which he immigrated to Israel, age and sex. Questions posed in relation to these factors were:

- a) What connection exists between the pupil's initial standard as regards any one specific aspect of those considered and the achievement registered at the end of a period of special training?
- b) What pupils are most likely to find the method of benefit: weak, average or good?
- c) Does there exist a connection between the pupil's vocabulary (and his cultural level) and the extent of progress made?
- d) What connection exists between vocabulary level and the pupil's age on immigration to Israel?¹
- e) Does there exist a connection between the age on immigration and progress achieved in written expression?
- f) Does there exist a connection between the sex of the pupil and the degree of progress achieved?
- g) What connection exists between the age of the pupil (i.e. those drawn from Grades 9 and 11) and the possibilities of progress under the method put forward in the experiment? Or, for which grade is this method a suitable one?

1) (Translator's note: Immigration is from scores of different countries; adults frequently continue to use their mother tongue at home and for most of their reading. Thus a child is often faced with a home delaying his learning of Hebrew until the kindergarten stage and with a background where the language spoken is not Hebrew and where there are few if any Hebrew books or newspapers.)

A) PROGRESS OF PUPILS

1) Class Progress as Assessed by the Teachers

Throughout the course of the year, teachers were asked to fill in mark sheets on which they were to note down the achievements of the pupils in regard to the various aspects dealt with as these emerged in marking the compositions set. It was our intention, thus, to examine the rate of progress made by the pupils during the year in regard to each of the various aspects, since almost all the compositions set -- in accordance with the instructions laid down in the workbooks -- were, in fact, written after study of an entire section relating to a specific point.

Unfortunately, we are not in a position to present any results on this point. Only a few teachers completed the forms, and even these marked too small a number of compositions to give any picture of the situation. All we have are assessments of compositions written by five Grade 9 experimental classes, where the time lag between the first and the last of these, as assessed by the teacher and registered on the forms, was at most only five months. There also exists a considerable doubt as to the level of consistency in marking displayed by these teachers.

The picture which emerges (and it is but a partial one) shows that by far the greatest change among aspects covered in the workbook occurred in regard to structure, (as regards each of the three aspects, there were some classes which did make progress and others which did not).

Important for our purposes, even if it is not something which can be scientifically measured, were the opinions of the teachers working with the experimental classes as these were expressed during a study day: "It was

an interesting experiment which helped the class advance and led to a better attitude to the whole subject". "Progress was not equal as regards all aspects of the material studied". There were no negative opinions voiced. Some teachers claimed that composition improvement shown in Hebrew classes had no further expression as regards the standard of written expression in other subjects (history essay writing for example). Discussing progress made in regard to various individual aspects, a number of teachers pointed out that they had detected no advance in the section dealing with the enrichment of content.

Sections where progress was seen were indicated as those concerned with paragraphing, analysis of structure and arrangement of material. These were conclusions identical with those we had ourselves reached through our own checks (see section dealing with Average Progress).

Questionnaires addressed to the teachers of the experimental classes (and we only received 10 properly completed forms) also testified to the feelings of the teachers with regard to the progress achieved:

Question

Answer

- 1) Do the pupils feel they have made progress in the subject?
- 2) What is your impression of the progress made by the class in this program?

Kibbutzim	Urban Schools
+ + +	0 0 0 + + + +
+ + +	+ 0 0 + + + +

0 = No Answer

† = Progress

* = "Progress made, but knowledge is passive"

**** = "Progress obviously attributable to the exercises set"**

2) Progress Indicated Via Analysis of Compositions

The overall picture of the pupils' progress as this was assessed by the teachers of the experimental classes has real relevance only when it is considered alongside the other, more accurate findings which emerged in the course of the research project.

a) Progress Registered -- General Picture

To obtain a general picture, we divided the various aspects into three major categories: content, structure and language. We checked to see whether progress had, on the average, been made, and which groups had registered such progress.

The figures, in fact, show that the teaching method propounded does help the pupils to advance: those in the experimental classes made a great deal of progress in regard to those sections studied in accordance with the method laid down in the workbooks:

Comparison of Progress in Experimental and Control Groups

(Based on difference between average marks in first check and those gained in second check.)

	Grade Nine		Grade Eleven	
Aspect Considered	Experimental	Control	Experimental	Control
Content	Progress shown-rise of 0.2 marks.	No progress	No progress 1)	No progress 1)
Structure	Progress shown-rise of 0.6 ^{##} marks (from 7.4 to 8)	No progress (from 7.67 to 7.62)	Progress - rise of 0.90 mark	Progress - rise of 0.49 [#] mark.
Language	Progress - rise of 0.246 mark	Progress - [#] rise of 0.46 mark	Progress ^{##} rise of 0.77 mark	Progress - [#] rise of 0.59 mark

1) The lack of progress marked for Grade 11 arises out of lack of consistency: sometimes the experimental classes had registered more progress, on other occasions more progress was registered by the controls -- both in a quite random manner.

[#] = Significance of 0.05
^{##} = Significance of 0.01

NOTE:

In our calculations we translated all marks and the differences between them into a standard-marks, the average of which is 7 and the range of which- from 4 to 10. We did so in order to make it correspond with the marking used in the schools. (Sigma is 0.125)

Content

The Grade 9 experimental classes showed only slight progress. Grade 9 control classes showed no improvement whatsoever. As regards Grade 11, there was no progress, neither in the experimental classes nor in the control groups. This section received only scant attention in the workbooks since we thought it unlikely that in the framework of this teaching program, it would prove possible to achieve any substantial enrichment of the pupils' realm of ideas. Such enrichment is achieved with the help of every other subject taught in school, as well as by reading, by life experience, etc. In the course of this section, we set out to teach methods of organizing ideas which were intended to help pupils not to forget the trend of their thought while translating it into written expression. For the most part, we were concerned to give instruction in methods of gathering material and approaching sources. The results of such teaching, which seems important to us, cannot be measured as they are expressed in a composition of limited scope such as written in one class lesson period.

Structure

The major component of the workbooks was in fact the teaching of correct composition structure, thus achievements are obvious in this section. Grade 9 experimental classes registered an average rise of 0.6 in mark¹ (with the average mark rising from 7.4 to 8), while the statistical check that we ran indicated that such progress is, in fact, of a high significance. Control

1) It should be pointed out that among the experimental classes there were some who did not manage to work through the whole of the section on structure.

groups showed no progress, with the average mark falling slightly from 7.67 to 7.62.

Both groups of Grade 11 classes showed progress, though that achieved by the experimental groups was greater, a rise of 0.9 as compared with a rise of 0.5 in the control groups. The difference becomes the more meaningful when we take into consideration that (as is witnessed on the questionnaires filled in by the control group teachers) pupils in Grade 11 do in fact study problems of structuring compositions within the framework of their normal curriculum, though not, of course, in the systematic manner put forward by the workbooks, while our system of organizing the writing is certainly not one which is widely practised in most schools.

Language

The workbooks used by Grade 9 did not include instruction in linguistic issues, thus there was no progress of any significance recorded in this respect as regards the experimental groups (the difference of 0.246 in the marks is not significant.)

The control group, however, showed an improvement of 0.46 in the average mark, a difference which is statistically significant. Many of the teachers of these classes noted in the questionnaire that they had spent time during the year on working through exercises directed at correcting linguistic faults, even if this working through could not generally be described as a systematic teaching of linguistics within written expression.

Both groups of classes in Grade 11 showed progress in language. The experimental groups raised their average mark by 0.77 and the control groups

by 0.59. (Grade 11 control groups were but little occupied with language study during the year, and that little, not in any systematic manner). What is interesting here is that as regards the experimental groups, language questions were left out of the workbooks altogether at this stage. It can therefore be assumed that systematic study of written expression, even when such study is concerned with other aspects of the subject, is nevertheless useful in helping pupils of this age to develop their powers of self-criticism in relation to other factors in their written work.

Perhaps we can thus suggest that as regards Grade 9 -- what was not studied via the exercises remained unlearned, while as regards Grade 11 -- exercises in structure seemed to produce a greater attention to other aspects of writing in general.

Progress in Various Aspects of the Subject

Now that we have a general picture, we shall divide up the details emerging in order to obtain a view of the achievements registered in each of the different aspects. In so doing, we shall base our judgement only on very obvious differences emerging between the two groups.

Progress Registered as Regards Specific Aspects

(Progress measured by fractions of marks)

ASPECT	GRADE 9			GRADE 11		
	Experimental	Control	Difference between experimental and control	Experimental	Control	Difference between experimental and control
Content						
a) Richness of ideas	0.23	0.22		0.1	0.31	
b) Adherence to subject	0.05	0.14		0.4	0	
Structure						
Opening and concluding paragraphs	0.69 "	0.549 "		0.46"	0.18
Paragraphing and connecting paragraphs	0.67 "	0.38 "		1.37 "	1.0 "
Logical order	0.39"	0.28	0.67 "	0.67"	
Language						
Use of word, prepositions and conjunctions.	0.01	0.452		0.57"	0.46 "	
Sentence structure	0.13	-0.57 (drop)		0.93"	0.5 "	
Punctuation	0.28	0.5 "	0.83"	0.38"	
Style	- 0.02	0.33		0.77"	0.59 "	

"— Where the difference in the marks between the first and second checks is significant statistically.

""— Where the difference between progress made by the experimental and that of the control groups is significant (Differences which seem great are not always statistically significant, since the sigma may be high.)

Content

a) Richness of ideas -- In both experimental and control groups there was no significant improvement in the content of the compositions. The exercises in this section of the workbooks were intended to teach the pupil to draw out of himself what he knew on any given subject and, especially, to organize his source material. This aim was set in the light of our supposition that it would not be possible, within the framework of composition lessons, to achieve any significant broadening of the pupil's horizons. Achievements in this latter direction, if they had in fact been registered, could not have been measured in the compositions written for the examiners in a one-lesson period. But in the more broadly-based composition which the pupils were asked to write on concluding the workbook, they could, of course, have made use of all the systems they were taught in class in relation to this point. Thus in these compositions, one might have been able to see some results as to the enriching of ideas. However, in most classes, the teachers never reached the stage at which this composition should have been written, both through lack of time and for other reasons. In any event, this matter never showed up fully in the compositions which were marked for the purposes of measuring the degree of progress.

b) Adherence to the Subject -- In this aspect, too, the progress registered was not significant, either in the experimental groups or in the control classes. We had thought that we could bring pupils on in this aspect within the space of one year's special effort, and it was this assumption which let us to formulate the relevant section in the workbooks. But our prognosis

was proved false. It is possible that this is due to the fact that it is difficult to wean pupils away from earlier habits (writing down everything that comes into their heads without any discrimination as to the relevance of the ideas), and that the few exercises proposed were not enough to break these patterns.

Structure

a) Opening and Concluding Paragraphs - In this aspect, pupils of the experimental Grade 9 classes made more progress than those in the control groups, though in both the level of progress was significant. The difference between the two classes was not significant since it depended on the number of pupils. Pupils of experimental classes in Grade 11 made better progress than those in the control groups, with the difference being significant.

b) Paragraphing and Connecting Paragraphs - Here too, the experimental classes did better than the controls with the picture which emerges resembling that obtained in the aspect just referred to.

c) Logical Order - In Grade 9, the experimental groups registered progress, while the progress registered by the control groups was not significant, with the difference between the two - significant. In Grade 11, both groups registered the same level of progress.

Language

a) Use of Words, Prepositions and Conjunctions - No significant progress was registered in either type of class.

b) Sentence Structure - There was no significant progress in Grade 9, but there was progress in grade 11. The experimental classes in this

grade, even while they did not study the problems of language and syntax, yet registered a high level of achievement. The improvement in sentence structure was specially obvious, and here, one might emphasize that sentence structure -- of all the issues connected with language problems -- is the closest to matters of composition structure as a whole, and it was this latter issue which the classes had been given exercises in throughout the workbook.

c) Punctuation -- In Grade 9, experimental classes registered no improvement, though the control groups did. In Grade 11, both groups made progress, with the advantage again going to the experimental classes.

d) Style -- The picture is similar to the one emerging in regard to punctuation.

Everything that we have stated above is correct when the emphasis is placed on significant improvements or on lack of such improvement in the different classes. The difference between the varying degrees of progress registered by the control groups and the experimental classes was not always significant from a statistical point of view. The difference between the higher results obtained in the experimental classes and those given for the controls is significant in Grade 11, with regard to opening paragraphs, closing paragraphs, paragraphing and connecting paragraphs ("structure"). Thus, looked at from a statistical view point, too, achievements registered in "structure", as this was taught in the workbooks, are the most obvious. Also significant was the progress made with regard to punctuation in the control groups, which had dealt with the study of language problems.

It was important to examine the picture emerging from the overall progress registered, and to this end we carried out a Sign Test,¹ to examine the significance of the direction of the progress: was it significant because of its consistency or not? While in the experimental and control classes, progress measured in accordance with the Sign Test was seen to be significant, when all aspects examined were included, progress registered by the experimental classes was significantly greater than that achieved in controls.

The Sign Test proved that the experiment had been useful in raising Grade 9 standards in "structure" only, though, without impairing their progress in other aspects. As regards Grade 11 - the experiment was effective in all aspects - with significant progress to a level of 3.5%.

In more detail: as regards "content," we can give no answer. This test needs 5 aspects and we had only 2 for content; a) Structure - a significant rise for both Grades 9 and 11; b) Language - the workbook's lack of emphasis on this aspect did not result in the control classes making more progress here - they did not show a more significant advance than the experimental groups.

Differences in Progress Registered by Marks as Shown in the Sign Test

Aspect		Grade 9 - Difference	Grade 11 - Difference
<u>Content</u>	Richness of Ideas	+0.21	-0.21
	Adherence to subject	-0.08	+0.4
<u>Structure</u>	Opening paragraph	+0.15	+0.28
	Paragraphing	+0.29	+0.37
	Order	+0.11	+0.00
<u>Language</u>	Use of Words	-0.34	+0.11
	Sentence structure	+0.7	+0.43
	Punctuation	-0.22	+0.45
	Style	-0.31	+0.18

Note: Where a plus sign is indicated, preference went to the experimental groups, a minus sign indicates preference to the controls.

1) S. Siegel - Nonparametric Statistics for the Behavioral Sciences.

B. THE CONNECTION EXISTING BETWEEN THE VARIOUS ASPECTS

The following two sections of the report relate to an examination of the connection existing between the various aspects, as looked at from two different points of view. On the one hand, we are concerned to examine the question as to whether any connection at all can be said to exist: e.g. is there a connection between a pupil's ability to write correctly structured paragraphs and his command of words? On the other hand, we are also concerned to determine whether there exists a connection between the pupil's progress in one aspect and progress made in the learning of a second aspect.

a) Is there any connection between the various aspects? To answer this question, we checked the extent of correlation between the achievements registered under the headings of the various aspects in those compositions which were written at the end of the project.

Checking of the results in Grade 9 experimental classes showed that the marks for sentence structure gave the highest average correlation with the other aspects (0.785). The conclusion to be drawn seems to be that this point, sentence structure, in fact forms the very core of the composition. Such a result leads one to think that it would be worthwhile checking out the point that more thorough-going teaching of this issue may perhaps raise the level of achievement in all other aspects. It also becomes apparent that in correcting compositions it is worthwhile for the teacher to stress the question of sentence structure, while in

assessing compositions, sentence structure can serve as a basis in determining the overall mark.¹

In the Grade 9 experimental classes, the various aspects can be grouped, according to their connections one with another, into two different categories which, nevertheless, are still connected with each other: a) the group concerned with language, and b) that concerned with structure and content.

In this division, which produces two distinct structures, there was no place for the aspect concerned with "opening and closing paragraphs" whose connections with the remaining aspects do not fit the general guidelines determining the two major divisions. It is possible that, in fact, there is no connection between mastery of this aspect and mastery of the others, and if this is so -- it must be taught separately. On the other hand, it is also possible that this differentiation had its roots in the fact that this point of opening and closing paragraphs was specially treated in a separate section of the workbooks. If this latter assumption is true, we can conclude that this issue should not be taught as divorced from other aspects, e.g. paragraphing.

No similar division into two groups emerged in the control groups of Grade 9² nor indeed, did there seem to be any very strong connections between achievements registered in the various aspects.

- 1) Tables on pp. 93 and pp.94 show the high correlation of syntax and the correlation found with regard to other aspects.
- 2) This is perhaps due to the fact that in the control groups a number of differing systems were used, sometimes the same class may have learned different aspects according to different methods. Consequently, their knowledge was less cohesive: pupils had studied and absorbed different aspects in different combinations instead of in an overall, unified manner.

Grade 9 Experimental Classes

	Paragraphing and Connecting	Logical Order	Richness of Ideas	Adherence to Subject
Paragraphing and Connecting	-	-	-	-
Logical Order	0.70	-	-	-
Richness of Ideas	0.53	0.69	-	-
Adherence to Subject	0.36	0.50	0.61	-

Content and Structure

	Words, etc.	Style	Sentence Structure	Punctuation
Words, prepositions, and conjunctions	-	-	-	-
Style	0.89	-	-	-
Sentence Structure	0.79	0.87	-	-
Punctuation	0.70	0.82	0.86	-

Language

In Grade 9 experimental classes, all correlations were high, while this was not true of the control groups. The following tables show the difference between the two.

From everything thus far stated, one can conclude that systematic exercises do in fact serve to strengthen the connection between the various aspects.

What is also of interest is the picture emerging as it relates to the connection between those aspects dealt with during teaching in the experimental classes (i.e. those concerned with "content" and "structure") and between those not studied at this stage of the project (i.e. those concerned with problems of language). In the experimental classes there is, in fact, a strong connection between the two: attention given to the issues of structure leads to a parallel improvement in matters relating to language. Perhaps it is going too far to speak of a transfer in the fullest sense of the word. Yet it can be assumed that attention devoted to one such aspect of written expression does serve to increase the pupil's awareness of other areas, and he thus is more scrupulous in the correct use of his knowledge.

**GRADE 9 EXPERIMENTAL
CLASSES**

**The Connection Between the Various Aspects¹
(Second Check)**

Content	Adherence to subject	Opening and con- cluding Paras.	Paragraph- ing & Connecting	Logic Arrange- ment	Preposi- tions, Conjuncts.	Sent- ence Struc- ture	Punc- tua- tion	Average Correl- ation
Content								
Adherence to Subject	0.61	-						0.48
Opening and Concluding Paragraphs	0.495	0.65	-					0.46
Paragraphing & Connecting	0.435	0.365	0.54					0.53
Logic Arrangement	0.69	0.50	0.275	0.70	-			0.635
Prepositions Conjunctions	0.475	0.34	0.27	0.425	0.485	-		0.59
Sentence Structure	0.375	0.315	0.41	0.58	0.735	0.79	-	0.785
Punctuation	0.315	0.09	0.45	0.52	0.68	0.86	-	0.60
Style	0.455	0.255	0.53	0.61	0.79	0.89	0.82	0.70

1) Findings are calculated according to: Guilford J.P. - "Fundamental Statistics in Psychology and Education," McGraw Hill Book Co., 1956; p. 325.

GRADE 9 CONTROL CLASSES

	Content	Adherence to subject	Opening and concluding paras.	Paragraphing & connecting	Logic Arrangement	Prepositions, Conjunctions.	Sentence Structure	Punct.	Average Correlation
Content	-								0.328
Adherence to Subject	0.595	-							0.328
Opening and Concluding Paragraphs	0.515	0.375	-						0.319
Paragraphing & Connecting	0.005	0.235	0.43	-					0.300
Logic Arrangement	0.305	0.115	0.115	0.315	-				0.178
Prepositions Conjunctions	0.255	0.395	0.035	0.075	0.105	-			0.328
Sentence Structure	0.355	0.265	0.185	0.225	0.185	0.64	-		0.485
Punctuation	-0.125	0.275	0.355	0.315	0.065	0.445	0.405	-	0.291
Style	0.615	0.33	0.485	0.675	0.245	0.535	0.955	0.535	0.610

We have not cited results for Grade Xi since the numbers are too small, the spread of marks too limited and the correlations of no significance.

b) The Correlation Found as Regards Progress in Different Aspects of Work Covered.

Our second viewpoint in examining the connection between the various aspects relates to consideration of the question of whether progress in one aspect of the material learned was connected with progress made in another. The correlation between progress achieved in the various aspects shows that in the experimental classes the correlation was higher: the average of all correlations in Grade 9 experimental classes is 0.354 as compared with 0.197 in the control groups; in Grade 11 experimental classes it was 0.352 as compared with 0.307 in the control groups. The number of significant correlations in the experimental groups was also higher than the numbers yielded in the control groups: of the 15 correlations thus reckoned, there were 15 significant ones in Grade 9 experimental groups as compared with 3 in the controls, and 7 in Grade 11 experimental as against 5 in the controls.¹

Thus we may, perhaps, deduce from this that systematized learning of a number of various aspects, when the connection between the various components is stressed and when previously learned material is fully exploited in subsequent steps, results in integrated progress in all related stages, a point which is of importance in our method.

1) See detailed table pages 97, 98, 99, 100.

In all classes, the progress made in studying paragraphing and writing of paragraphs, showed the greatest connection with advances made in other aspects. It appears from this that many of the factors, exercise in which leads to progress in paragraph formation also lead to advancement in other aspects of written expression.

The weakest connection was found to exist between progress in language and that in the other aspects. This was true both in the experimental groups, where language problems were not tackled during the first year of the project, as well as in the control groups where considerable attention had been given to such issues, though not in any manner which pointed up the organic and systematic connection between these problems and others concerned with composition writing.

It can be deduced from this that language problems as they are taught in school do not contain within them many elements which are also common to the development of other aspects of composition work. Such an assumption leads one to think that language teaching in schools must somehow be changed. In the second phase of the experiment we were concerned to give attention to linguistic problems in written expression, integrating them with other aspects of the subject - and then we saw a change in the picture: language issues showed a close connection with other aspects.

Tables of Correlations Between Progress Registered in the Various Aspects

Grade 9 - Experimental

Aspect	Content	Adherence to Subject	Opening and Closing Paragraphs	Paragraphing & Connecting	Logical Order	Language	Average Correlation
Content	-	0.20 *	0.54 **	0.41 **	0.26 **	0.37 **	0.352
Adherence to Subject		-	0.49 **	0.24 **	0.29 **	0.04	0.252
Opening & Closing Paragraphs			-	0.38 **	0.59 **	0.05	0.41
Paragraphing & Con.				-	0.67 **	0.44 **	0.43
Logical Order					-	0.32 **	0.426
Language						-	0.224

0.354 - Average of averages

The general picture: Connections between the progress in the various aspects. (13/15 of the correlations are significant, of these 12 on a level of 1%.)

The progress registered in paragraphing is more closely linked with advancement in all other aspects than is any other single factor.

A relatively close connection with the other aspects also exists between progress registered in "logical order" and opening and closing paragraphs". (The latter is unconnected with language issues).

Language problems show an unrelated improvement as regards the other aspects.

Grade 9 - Control

Aspect	Content	Adherence to Subject	Opening and Closing Paragraphs	Paragraphing & Connecting	Logical Order	Language	Average Correlations
Content	-	0.24	0.39	0.2	0.06	0.18	0.213
Adherence to Subject	-	-	0.34	0.1	0.08	0.15	0.182
Opening & Closing Paragraphs			-	0.16	0.29	0.04	0.244
Paragraphing & Connecting			-	-	0.51	0.17	0.228
Logical Order				-	-	0.05	0.198
Language						-	0.118

0.197 - Average of averages

The general picture: Correlations are low, and of these only 1/5 are significant.

"Opening and closing paragraphs" shows the highest average correlation with the other aspects but even this is not high (0.244).

The correlation is highest between "paragraphing" and "logical order" - 0.51 (it can be supposed that the factor of orderly thought operates on progress in both these aspects). Correlation between "opening and closing paragraphs" and "richness of content" is 0.39 -- between "opening and closing paragraphs" and "adherence to the subject" -- 0.34.

There is no significant correlation between the remaining aspects.

Grade 11 Experimental

Aspect	Content	Adherence to Subject	Opening & Closing Paragraphs	Paragraphing & Connecting	Logical Order	Language	Average Correlation
Content	-	0.34 **	0.34 *	0.44 **	0.31	0.27	0.340
Adherence to Subject		-	0.52 **	0.26	0.46 **	0.1	0.355
Opening & Closing Paragraphs			-	0.13	0.31	0.21	0.300
Paragraphing and Connecting				-	0.76	0.62 **	0.240 **
Logical Order						0.29	0.410
Language						-	0.290

Average of averages - 0.352

The general picture: Half of the correlations are significant, to a level of at least 5%. More than all the others, there is a high correlation between progress in paragraphing and that in the other aspects. Improvement in "logical order" also shows a connection with progress in the other aspects. Progress in "opening and closing paragraphs" shows less connection with progress in other areas, similarly, too, the same is true of language (aside from the connection existing between paragraphing and language).

Grade 11 - Control

Aspect	Content	Adherence to Subject	Opening & Closing Paragraphs	Para. & Connecting	Logical Order	Language	Ageage Correlation
Content	0.19	0.19	0.28	0.42 ^{***}	0.28	0.31	0.300
Adherence to Subject		-	0.11	0.56 ^{***}	0.21	0.21	0.25
Openint & Closing Paragraphs			-	0.31 *	0.44 ^{***}	0.05	0.240
Paragraphing & Con.				-	0.62 ^{**}	0.05	0.392
Logical Order					-	0.28	0.346
Language						-	0.180

Average of averages - 0.307

The General picture : Low correlations, and of these only 1/3 are significant (to a level of 1%). Progress in "paragraphing" shows the greatest correlation with that of other aspects. Following this, in the order of magnitude of connection with the remaining aspects - "logical order" and "richness of content". Here too, the connection between progress in language and that in other aspects is shown to be the least.

Extent of Correlation Between Achievements Registered
in the Initial and Final Compositions

	Experimental N = 97	Control N = 42	Experimental N = 30	Control N = 39
Content - Richness of Ideas	0.109	0.000	0.140	0.440 **
Adherence to Subject	0.092	0.220	0.019	0.060
Structure - Opening and Closing Paras.	0.075	0.402 **	0.120	0.220
Paragraphing & Connecting	0.317 **	0.126	0.015	0.160
Logical Arrangement	0.230 *	0.160	0.120	0.552 **
Language - Use of Words, Prepositions and Conjunctions	0.070	0.260	0.263	- 0.289
Sentence Structure	0.260 **	0.450 **	0.044	0.516 **
Punctuation	0.230 *	0.389 *	0.154	0.462 **
Style	0.210 *	0.580 **	0.482 **	0.308 *

* significance of 0.05

** significance of 0.01

— : difference between correlation is significant

C. Various Factors Concerned with Teaching Written Expression

a) Correlations Existing Between Achievements at the Beginning of the Project and Those at the Close of Stage A

The extent of correlation between the pupil's standing in his class at the end of the experiment and at its commencement has been examined with the aim of answering the question as to whether a pupil's achievements at the end of the experimental year, relative to other members of his class, are connected with his initial class position as shown at the commencement of the project.

This matter is dealt with in Anastasi, A.: "Differential Psychology," where, in summing up the chapter on "Training" she writes, "Persons tend to maintain the same relative standing throughout training".

Our own checking into pupils' achievements has led us to a similar general conclusion. It appears on examination that there does exist a connection between the initial level and that achieved at the end of the year in all aspects relating to composition writing (see the following table: all correlations were positive, and of 36, there were 15 which were significant): a pupil's standing at the end of the year is influenced by his position at the beginning of the year. There is no teaching method which can be of help in transforming a backward pupil into one who excels, all that can be done is to bring each pupil on relative to his own initial standing. Yet for all that the connection is quite weak, there are low correlations, and there are those which are not significant. This weak connection points to the possibility that exists for bringing about a change in the standard attained in respect of some individual pupils within the general, fairly clearly fixed framework, and thence points up the great importance to be attached to class teaching.

The lowest correlation was that relating to the various aspects appearing under the general heading of "content". This appears puzzling: it is really possible that the richness of ideas shown by a pupil can change in such a radical manner in the course of one year?

The answer to this question seems to lie in the different subjects set for the two different compositions — the one at the beginning of the year, the other at its end. It is possible that the pupil who showed such a wealth of ideas as regards one, suffered from a paucity of thought as regards the other.

The highest correlation existed in those aspects connected with linguistic problems; the conclusion to be drawn here is that a pupil's placing in his class as measured by his linguistic achievements, remains fairly constant under normal teaching systems and that no sudden leaps of progress can be expected in relation to this branch of the subject as a whole.

"Structure" took the mid-point between the high and low correlations just mentioned.

All in all, correlations as regards each aspect were higher in the control groups (an average of 0.31) than in the experimental classes (0.16). We thus deduce that the teacher's influence was more keenly felt in the experimental groups.

In order to achieve an even clearer picture, we carried out a further examination relating to the average achievement of each pupil as regards "content", "structure" and "language" as all-inclusive functions. (See Table).

Each pupil was given an average mark for each of the three above aspects. Thus we balanced out the discrepancies which existed, for example, in the case of a pupil who scored highly as regards "opening and concluding paragraphs" and "logical order", but poorly as regards "paragraphing" — here he will

appear as having a middling mark as regards "structure".

The Extent of Correlation between the Two Terminal Compositions
When Regarded from the Point of View of the Aspect-Average

	Grade 9		Grade 11		Average 9 and 11	
	Experimental	Control	Experimental	Control	Experimental	Control
Content	0.325** - 0.135	0.267	0.364 X	0.259	0.345xx	0.263x
Structure	0.210	0.490xx	0.022	0.422xx	0.115	0.456xx
Language	0.379xx	0.524xx	0.265	0.521 xx	0.322xx	0.522xx

x - significance 0.05

xx- significance 0.01

The picture gained from this table of correlation shows that in the control groups there existed a very significant connection between the position held by the pupil after the year's work and that attained at the outset of the year as this relates to the three fundamental aspects of written expression. In the experimental groups such a correlation existed as regards "language" and "content", but not as regards "structure." Our assumption is that the change which did occur was a result of the study program -- for "structure", in fact, was the main point dealt with in the experimental groups. This conclusion corresponds to the results as they are shown in the section devoted to progress achieved by the experimental groups (page 81) where the main area of progress is shown to be that related to the various aspects of "structure".

b) Progress as it Related to Various Types of Pupils

A further question we asked ourselves at the outset of the project was that concerned with the type of pupil who could most benefit from use of the workbooks: the weak, the medium or the bright pupil. To this end we checked the correlation between the initial level of the pupil and the extent of his advance during the year. This correlation showed, in a general manner, that weak pupils made relatively better progress than the brighter ones.¹ But, at the same time, we cannot definitely determine the different influence study has on the individual (i.e. the initial) levels of the pupils involved. This latter point is one which is borne out by a great many other research reports.²

Other research work³ shows that individual differences between the pupils generally speaking show an increase with further exercise and study. In our own experiments, we were unable to prove that such an influence was in fact operating, since we did not have a sufficiently wide spread of marks to establish this point, nor were the examinations set prior to and on the conclusion of the project suited to measuring absolute progress.

- 1) We also tried to check average progress according to a more detailed sorting of the pupils, but we did not have sufficient numbers to permit of such a venture: there were certain levels of achievement into which we could place only one or two pupils and it is obvious that nothing can be learned from such small numbers.
- 2) Anastasi, "Differential Psychology", p. 197; "The relative contribution of practice and of prior individual differences to the total variance of a group depends upon the extent of practice differences in the group, as well as upon the range of prior individual differences. When put in general terms, this is a meaningless and unanswerable question."
- 3) Anastasi, *ibid*; "Individual differences usually increase with practice. "

Average Progress According to Types of Pupil

Level of Pupil	Grade	Content		Structure		Language	
		Exper.	Control	Exper.	Control	Exper.	Control
Weak 4 - 5	9	2.2	No pupils	2.25	2.5	1.5	1.8
	11	No pupils	No pupils	No pupils	2	1	1
Satisfactory 6	9	1.3	1.9	2.3	0.75	0.6	0.7
	11	2	2	3	1.7	2.4	1.8
Average 7 - 7.5	9	0.9	0.08	0.9	0.62	0.2	0.53
	11	0.5	0.75	0.83	0.84	0.34	0.4
Good 8	9	0.24	0	0.4	0	-0.2	0.66
	11	0.3	0	0.43	0.66	1	0.3
Very good 9-10	9	-1.3	-1.4	-1	-1.3	-1.5	-1
	11	-1.3	-0.7	-0.66	0	-0.3	No pupils
Correlation between initial level and extent of progress	9	0.30	0.6	0.43	0.54	0.4	0.27
	11	-0.66	-0.55	-0.63	-0.51	-0.44	-0.35

As regards the progress made by pupils marked "very good" or unsatisfactory", we have no really satisfactory measuring standard since their marks can only change in one direction. (Regression towards the average). There is no significant difference between the experimental and control groups as regards progress related to initial standards: the conclusion to be drawn here would seem to be that the proposed system does not affect any single pupil level more or less than does any other group.

C) Pupils' Progress as Looked at from the Point of View of the Vocabulary Test Results.

A vocabulary test is generally regarded as one of the best means of measuring the intelligence level of a pupil - always provided that it is given in his mother tongue. It is assumed that a person's vocabulary also reflects both his ability for abstract thinking (in itself an activity that is concerned with linguistic concepts), and too, the extent of his general knowledge as this has been acquired by reading.

The same vocabulary test was given to both Grades 9 and 11, though the standard of marking, (which was that generally adopted in our schools - i.e. from 4 - 10), was higher for Grade 11. The intention was to see who would derive more benefit from this systematized method of study - the pupil whose intelligence and cultural level was relatively high, the one who had a middling standard, or the one whose standard was low.

A connection was found to exist between vocabulary level and the mark attained by the pupil for the initial composition,¹ but we did not find any difference in the progress made by the pupils of different levels: the pupil's intelligence and cultural level have no bearing on the extent of his progress.

1)

	Grade 9	Grade 11	
The connection between vocabulary and content	0.30	0.17	weak
The connection between vocabulary and structure	0.13	0.23	weak
The connection between vocabulary and use of language	0.33	0.35	strong

d) Vocabulary Level and Year of Immigration to Israel

A close connection was found to exist between the level of vocabulary (as this was expressed in the vocabulary test) and the age at which the pupil immigrated to Israel in Grade 9 experimental classes and control classes alike (a correlation of 0.587, with a significance of 0.001). Grade 11 showed no such connection.

The question one must pose is why does the vocabulary level of immigrant pupils in Grade 11 not fall below that of those born in Israel? Our own assumption is that only the best of the immigrant children remain at school to the level of Grade 11, and thus they are the equal of native-born pupils as regarded from the standpoint of achievements in this test. This is born out by the drop in the number of immigrant children studying in Grade 11 as compared with those in Grade 9.¹ (This picture is true of the years of the experiment.)

Of all the immigrant children, the numbers of those who immigrated at the age 5 fell less than did the numbers of those immigrating at the age of 9 or more.

We also checked the correlation existing between the pupil's age on immigration and the linguistic level attained as this was shown in the language used in the composition written at the beginning of the experiment. The extent of correlation was quite high as regards Grade 9 (a correlation

1) The risk that the change was of an accidental nature and true only for our sample was taken into consideration statistically and found to be very small - - 1-2%. The result is therefore significant.

of 0.419, with a significance of 1%). The results seem to bear out the assumption that vocabulary level has a substantial influence on the linguistic aspects of composition writing. (This statistical confirmation is important since it is not necessarily true that passive knowledge of a language also permits its correct active use). As regards Grade 11, there was no correlation, a fact which can be accounted for by our earlier explanation of the lack of correlation in this grade between the age on immigration and the vocabulary test results.

e) The Influence of the Year of Immigration on the Extent of the Pupil's Progress

The question we asked ourselves was whether the pupil's age on immigration to Israel also influenced the extent of his progress in the systematized learning put forward by the workbooks. Is programmed study more helpful to the child who was either born here or has spent most of his life here, than it is to the new immigrant, or is there perhaps no difference? In checking this point, we excluded those children who, at the time of writing the composition (1961) had been less than two years in Israel (i.e. those who had immigrated after 1959). The pupils were divided into the following categories: Israeli-born; those who had immigrated prior to starting their elementary school education; those who had immigrated between grades 1 and 5; those arriving prior to grade 8; and those who had immigrated during the course of their high school studies. Thus we were able to examine pupils' progress in composition study as it also related to their length of residence in Israel.

The experiment showed that there exists no connection between the pupils' age on immigration and the extent of his progress in the study of written expression. This is true both of pupils in the experimental classes where they were following a systematized program of study, and of those in the control groups who did not follow any such course. There was no difference in the extent of the progress achieved by local-born pupils as compared with immigrant youngsters in any of the various aspects: content, structure or language.

This was true, too, both for Grade 9 and Grade 11; although as regards the whole question, the small size of the sample was a drawback operating against the objectivity of the investigation. Many of the teachers failed to indicate the pupils' age on immigration.

f) The Influence of the Pupil's Sex on the Extent of Progress

The connection found to exist between the sex of the pupil and academic achievement was further confirmed by our investigations. There was a significant correlation between the pupil's sex and the mark achieved by the pupil with regard to the content and the structure of the essay written at the outset of the experiment. There was also a correlation between sex and linguistic attainment, but this was not significant. In every case, the advantage lay with the boys:

Content: boys in Grade 9 had an advantage over the girls
 (higher mark) of 0.86, while those in Grade 11
 scored 1.3 higher.

Structure: Boys in Grade 9 scored 0.24 better than girls, those in Grade 11 0.09 higher.¹

The question we now asked ourselves was whether the pupils' sex also determines the extent of their progress within the systematized learning program put forward by the workbooks.

The answer was unequivocally clear: there is no difference in the extent of progress made by boys or girls, neither as this relates to Grade 9 nor as it applies to Grade 11, neither in regard to progress in content, nor in relation to progress in structure or language. The sex of a pupil is in no way connected with the ability to make progress in studies along the lines of such a systematized program.

g) The Connection Between Progress and Age

The final two points we were anxious to check were: a) is the proposed system of learning composition writing applicable for the age-level 14-15, and is it also applicable for the age-level 16-17? b) for which of these two groups is it more useful?

The first question is of profound importance to teaching: for if we can push forward the teaching of the structuring and logical organization of functional writing to Grade 9, then pupils so taught at this age will be equipped with the correct tools throughout the whole course of their

1) Generally speaking, boys in academic secondary schools record a higher level of achievement than girls, since "weak" boys are usually transferred to vocational high schools, while girls who are similarly "weak" students continue in academic high schools.

secondary education, both as this affects written expression as a separate subject and as it affects all other school subjects where written expression is involved. (The argument in favor of an earlier start is based on the fact that even in the final stages of elementary schooling, and certainly in Grade 9, pupils write functional "compositions" in many of their school subjects, whether they take the form of short pieces of writing on a specific subject, or larger "compositions" summing up a complete issue. If we can teach our pupils other aspects of written expression and language control, both in Grade 9 and in succeeding classes, it will be possible to go even deeper into questions of structure and logical order.) On the other hand, as opposed to this line of reasoning, many teachers claimed that pupils in Grade 9 are incapable of the type of logical thinking and abstraction necessary for the proper organization and construction of a composition. These teachers claimed that Grade 9 should continue to write compositions concerned with the pupils' own experiences, with description and with story-telling or, if they did at all attempt "functional" writing, they should do so to the extent of but one paragraph or an enlarged paragraph alone.

The experiment showed that pupils of both Grade 9 and Grade 11 derived benefit from the systematized study of functional composition writing.

A comparison of the progress registered by pupils of Grade 9 experimental classes and those of Grade 11 experimental showed that Grade 11 generally speaking advanced more than Grade 9 (see the Table of Progress made as Regards the Various Aspects, p 84), yet the difference is not one which would force one to the conclusion that the proposed method of study should be deferred to

Grade 11. (A close study of the progress registered in regard to the various aspects shows that the question of opening and closing paragraphs was, in fact, better assimilated in Grade 9. The Grade 9 achievements in the other aspects of "structure" also are high and significant.)

A similar answer to the question is provided by checking with the aid of correlation reckonings as between the rise in age and the rise in achievements. There is, in fact, a connection between age and progress: Grade 11 made more progress than did Grade 9, but the connection is a weak one. One must conclude that the age of the pupils (from age 14 and upwards) cannot be seen as an important factor in their progress as this applies to their studying under the method we have proposed.

It should also be pointed out that we carried out a supplementary experiment, along parallel lines, in Grade 10. Unfortunately, however, the majority of the participating teachers failed to carry out their obligations. From the isolated results available we can say only that progress was similarly registered as regards Grade 10 pupils following the workbooks. To what extent this progress was significant, we cannot say, nor can we compare the advance made here with that achieved in other classes.

The conclusions to be drawn are that systematized learning of composition writing is likely to be beneficial both to the lower and the higher grades of secondary schools. Grade 11 is apt to derive more benefit from such a method than is Grade 9, but this should not lead one to assume that the teaching of these issues should be deferred to a later stage. (On the contrary, many weaker pupils drop out of school between Grades 9 and 11 and there is always

the fear that if such study is deferred, they will finish their formal schooling without having acquired the elements of organized writing.)

Systematized teaching of composition construction should be begun in Grade 9¹ and continued in the subsequent grades, being deepened and connected with the study of yet other aspects of written expression as pupils proceed to higher grades.

1) Though perhaps not at the beginning of this year.

SUMMING UP - STAGE "A"

In summarizing the work of Stage A we can say with certainty that there is something to be gained from teaching work methods in respect of written expression. The method itself, taught by means of systematic exercises in the various problems of composition structure, ~~aids~~ the pupil in making progress in written work. For teachers using the system proposed here, there exist far more possibilities of helping the pupil than is the case with the normally accepted teaching techniques: even though it was found possible to bring the pupil on only in relation to his original class placing, nevertheless, the teacher's active part in the pupil's progress was more keenly felt in the experimental classes than it was in the control groups, while the strongest sphere of influence was found to be that concerned with composition structure. The possible extent of a pupil's success in this system is not dependent on I.Q., nor on the age of immigration to Israel, nor on sex.

Grade 11 pupils using the system achieve more than do those in Grade 9, But these latter also make considerable progress. One should therefore have no fears as to the suitability of such a system for Grade 9 and this fact should be taken into consideration when weighing up the entire secondary school syllabus in written expression.

Considerable advances were made by those pupils who were taught according to the proposed system in the various aspects of composition construction, and especially in logical order, paragraphing and connecting paragraphs.

Language, even while it was not specifically dealt with in the workbook exercises at this stage, showed an improvement which seems to have been influenced by the fact that pupils were handling the organization of their writing in stages. Perhaps the linguistic improvement was due to the fact that, working under this system, a pupil deals separately with the various stages of collecting material and structuring the work, thus, when it comes to actual writing, he is free to turn his thoughts more towards the problem of just how to express himself.

At the same time, the system does not simply lead to a fragmentation of the subject, to isolated and self-contained improvements registered as regards single aspects. Progress in the various factors involved is integrated, and the experiment has proved that study along the lines suggested even strengthens the internal connections existing between the different aspects of written expression. It thus seems that systematic teaching of the organization of written material, and directed treatment of the various structural problems, develop a pupil's sense of responsibility towards the whole issue of writing (and hence, too, the improvement we noted as regards the language used). Since he is also concurrently acquiring tools which he can use at various stages of his work, his writing, too, improves. It is encouraging to note that, without any doubt, the system also brings about a welcome change in the attitude to written expression of both pupils and teachers, with a far more positive approach showing itself.

In examining the results of Stage A, which was concerned with issues of structure, we already saw hints of a trend that seemed liable to develop even further in Stage B, the section of the research project which dealt more with

linguistic problems.

Two factors stood out in Stage A for their failure to coincide with the overall picture of progress in general, and integrated progress in particular. The first of the two was that concerned with "adherence to the subject", which formed part of the "content" aspect: here the experimental classes failed to register the expected progress (see p. 85). The second concerned the connection between language and the other aspects of composition work. Progress in this aspect was, in fact, found to be connected with advancement made in the other aspects, but the connection was the weakest among those found to exist as between the other aspects. This was so, both for the experimental groups, where language issues were not dealt with at this stage of the experiment, and for the control groups, where considerable attention had been paid to this aspect of composition work, even if its teaching bore no organic, systematic relationship to the other aspects of the work. This latter point was the one which hinted at the direction to be taken in the second stage: we wanted to check out whether a teaching method which maintained an integrated and directed connection between the various aspects of writing would, in fact, also lead to improvements in this direction. To our view, there is a lesson to be learned too, from the failure to make significant progress in the question of "adherence to the subject". This issue was studied in its correct context when this is judged as regards its place in the various working stages (i.e. at a point when the pupils were concerned with the problem of gathering and sorting their material) yet it was an isolated concern with but one of the issues connected with the thinking out of a composition. So we are faced with the question of whether prolonged practice in the various

aspects of thought and its development in composition, directed towards answering the various questions arising in written expression, would, too, lead to an improvement as regards this point. Thus the aims we set ourselves for the second stage were expanded to include these two additional issues.

STAGE "B"

S T A G E "B"

THE TRANSITION FROM STAGE "A" TO STAGE "B"

Stage "A" gave us answers to questions as to whether it was possible to impart to pupils some organizational methods for their written work: i.e. the possibility of systematic teaching built on the various stages of such work.

Further, Stage A also served as an additional pilot project. We learned about the possibilities inherent in the work, the possibilities of working through the statistics, and in particular, about the possible directions the development of systematic teaching might take. It is thus that a number of changes in the techniques of the research in its second stage must be understood, and thus, too, that a slight change in the direction of this stage will be understood. For though initially the second stage was only intended to check into the linguistic aspects of composition teaching - i.e. grammar and style - it was extended, as a result of the conclusions drawn in regard to the first stage, to include the wider implications of linguistics - i.e. to embrace, too, questions concerned with clarity of thought.

AIMS SET FOR THE SECOND STAGE

As in the first stage, the overall aim of the second stage was to bring about a change in the attitude of both teachers and pupils to the whole subject of written expression: to erase the usual conception of a "composition lesson" and instead to present the whole subject rather as that which develops those spiritual qualities of communication which the authors of the Harvard report see as being one of the most important qualities which education should strive to develop. In bringing about such a change, we followed a defined practical direction: we did not want to simply confine ourselves to yet further discussion of the importance of written expression -- for its importance cannot be questioned -- instead we wanted to point up practical teaching methods, to see the subject established as one which had a set syllabus and a defined teaching pattern just as did the other school subjects.

A further aim was concerned with educating our pupils, via regular class teaching, towards intellectual honesty and consideration for others -- in this case either the reader or the interlocutor.

In order to achieve these two general aims, we set ourselves two specific teaching aims: we tried to construct a systematized scheme of exercises based for the most part on the specific needs of secondary school pupils as these had been shown up via analysis of their composition work (for further details on the card-indexes of common mistakes, see pages 25-28).

In this stage of the experiment, Stage "B", our aim was the improvement of linguistic failures, in the wider sense of the word: i.e. we wanted to equip pupils with methods of thought and techniques of writing which would help them put across their ideas in the clearest possible manner. We shall

discuss this in more detail in the section which is concerned with a description of the method suggested in the experiment.

In order to prove that the suggested method in fact did lead to improvements along the lines of the aims set, we established certain working hypotheses whose truth we intended to check in the course of the research.

RESEARCH HYPOTHESES IN STAGE "B"

The major general hypothesis we set out to prove was that teaching along the lines of the system we proposed would contribute to the pupils' progress in written expression. We assumed that such progress would be significant, i.e. that it would be more than a mere accidental change, greater than the change which in any case could be expected in the course of a year's further schooling, more than could be accounted for by the extra maturity such a year would bring, and of more weight than the change regular teaching methods could bring about.

But as opposed to the overall assumption with regard to progress, we could not hypothesize in advance what progress would be made in each of the various individual aspects of written expression: we could not forecast which aspects would show a significant advance and which would not, nor in what proportion. Thus we based ourselves simply on the hypothesis of a general direction: i.e. that there would be progress in the various aspects.¹

The operative assumption was that the experimental classes, who would be studying the different principles of written expression in a systematic

1) It was this assumption which led us to use the sign test as our chief method of statistical checking.

and consistent manner, and who would benefit from exercises in these principles throughout the year of the experiment, would make more progress than control groups who represented the existing state of tuition in written expression and whose general school circumstances had been matched up with the experimental groups.

We again wanted to examine a number of factors concerned with the teaching of written expression (similar to those checked in the first stage) and to look into the influence they have in general on such teaching, and the influence they exert on the system we proposed in Stage "B" in particular. Our assumption was that there would not be any very substantial difference between the results of Stage "A" and those of Stage "B".

In order to test the truth of all these hypotheses we chose the research method which compares the results of the treatment given to the experimental classes with the results shown in the control groups which received no such special treatment.

THE CONTROL GROUPS

1) The Teaching Syllabus in the Control Groups

- a) The principle: presentation of usual teaching methods with the addition of special stimulation.

Both as regards the material studied and as regards the manner of working, the control groups were intended to demonstrate the normally accepted pattern of teaching composition in Israel in grades 10 and 11. As we have already explained in the general introduction to this project, composition is usually taught by the writing of a few compositions during the year, the correction of the work, and the working through of a number of isolated exercises compiled by the teacher. Thus the basis of work in our control groups was provided by the six compositions which must statutorily be assigned (one of them as homework), and a number of different exercises.

In order to achieve a fair comparison between the control groups and the experimental classes from all points of view other than the methodological aspect, we made certain in advance that both would devote an equivalent amount of time to the subject: the principals of the schools taking part in the experiment agreed to assign one lesson period per week to the teaching of written expression in all classes concerned. In this period the teachers of the control group were to carry on their normal practice of composition instruction.

Both groups were on an equal footing as regards the number of compositions to be written and the content of the work. Both in the experimental and in the control groups teachers were to concern themselves only with functional writing and to concentrate particularly on linguistic issues. Teachers in the control classes were also told that the aim was education towards thought and precision of expression.

Nevertheless we could not ignore the fact that we were here concerned with an experimental project and that in the natural course of things, the experimental classes would benefit from an additional push forward. They were in receipt of guidance, under the supervision of the research directors, and, above all, the very consciousness of being an experimental class in itself urged both pupils and teachers onward to success. In order not to over weight the scales in favor of the experimental class, we had also to provide some special and similar push for the control groups.

We used three different methods in this respect: the "workshop", guidance and the dispatch of special teaching material for these classes.

b) The "Workshop"

The idea of a "workshop" was suggested to the teachers in experimental classes "B" (throughout the experiment we used this designation for the control groups in order to prevent those participating from having any feelings of inferiority arising from the fact that they were "only" control groups).

It was proposed that from time to time, teachers in this group be invited to workshop sessions where they would discuss problems in the light of concrete needs, exchange ideas and suggestions arising out of experience, and, most important, discuss their exercises and the text books which they had found to be useful. It was felt that such workshops would serve not only to enrich the teachers' ideas and material, but also to create the desired incentive which would itself spring from the feeling of participation in a progressive experiment. The program of the workshop was to be implemented in special study days and also through our coordinator, whose task it was to maintain the connection between the participating teachers and also attend to the exchange of exercises among them.

c) Guidance

The coordinator of the control group was assigned the task of seeing to it that some equality was maintained between the experimental and control classes by visiting the teachers of the latter while they were at work, listening to their lessons and giving them appropriate guidance. Thus he would see what problems came up in class, discuss them with the teacher and attempt to give advice in their solution. It was intended that the coordinator should help teachers improve their customary teaching methods, especially by drawing their attention to professional, methodological and didactic issues. Since the teachers were to devote one lesson period a week to the subject, something which was not usually the case, we also sought to ensure that the time not be wasted. In response to teachers' requests, the coordinator was to send them material and exercises

and to duplicate and distribute to all participants exercises compiled by their colleagues.

d) Material

Exercises: We proposed to supplement the work of the control teachers by providing guidance initiated from our side: from time to time, the coordinator was to send duplicated material for both teachers and pupils in these classes. The material was to include exercises which he had specially arranged.

Bibliography: The coordinator was to supply the teachers of the control groups with lists of text books, books of exercises, articles and research reports.

Subjects for compositions: Teachers were also to receive lists of appropriate subjects for compositions and special guidance in correcting them.

All these steps were proposed only with the idea of providing some incentive, and not with the intention of giving any real direction from our side. The teachers in the group were to work together with the coordinator via mutual discussion, but were, in fact, to be quite independent. They were free to accept or reject his suggestions as they saw fit.

Description of the Material

The exercises compiled by the teachers in this group, and subsequently passed on by us to all its members, were concerned with the following points:

Correction of mistakes concerned with failures of precision in the use of words, both in sentences and in short paragraphs, and tests on such material (the exercises were based on material drawn from a standard local text-book):

- a) Precision in choosing the correct verb to be used in a number of given sentences:
- b) Exercises in correcting faults of word usage:
- c) The creation of atmosphere and descriptiveness in compositions by the use of adjectives and adverbs:
- d) Exercises in structuring the composition: logical arrangement of paragraphs, titling:
- e) Extending the study of and exercises in, the material contained in the local textbook "How to Write a Composition" by S. Nahir.

The exercises were concerned with the quality of expository writing, with narrowing down and dealing precisely with the subject to be written about, and with the correct construction of paragraphs.

Exercises despatched by the coordinator dealt, either in accordance with the specific requests of the teachers or as seemed fit to the coordinator himself, with the following points:

- a) Overwordy sentences: correction of faulty sentences.
- b) Dangling modifiers, those in which the connection with the core of the sentence is ambiguous; modifiers such as these can be related to other parts of the sentence to which the writer

does not intend them to belong. In such exercises, pupils are asked to relocate the phrase or clause in its correct position. Teachers were also directed to similar exercises on this point appearing in a number of textbooks.

c) Parallel structure (e.g. "the child is learning to read and write"), in incorrectly written sentences (e.g. "the child is learning to read and writing") pupils are asked to restructure the sentence in such a way that the parallel components fit. Many correct examples were given, and the teachers were supplied with the correct answers. Here too, further references to similar exercises appearing in textbooks were supplied to the teachers.

d) Sentence fragments: distinguishing between a sentence fragment and a complete sentence; exercises in writing complete sentences, exercises in simplifying sentences made clumsy by too many clauses; punctuating complex sentences.

e) The rules of punctuation, exercises in punctuation.¹

Composition subjects suggested in the list sent by the coordinator to the teachers in the control group were those generally chosen for secondary school work, even if not among the most banal (the teachers were, of course, free to choose entirely different topics).

1) Translator's note: The Hebrew version of this report included a listing of the books recommended to the teachers: since these are all local textbooks, printed in Hebrew, there seems little point in transcribing it in the English version. Interested persons can receive the list on application.

- .. How I would put over a specific youth movement activity if I were the group leader.
- .. A certain person has made a great impression on me. Why?
- .. The good and bad influence wielded by the radio or the cinema.
(The book, "Man in Modern Society" was recommended as student reading on this subject).
- .. The qualities I like in my friend, or, Whom I would choose as a friend.
- .. Is there room for romance in our time?
- .. The force of personal example, or, Theory versus practice.
- .. Jack of all trades, master of none.
- .. I smile, therefore I am.
- .. If you lose your fortune you haven't lost all; if you lose your faith, all is lost.
- .. Wee to the man who learns only from his own experience.
- .. Sometimes one just has to be alone.
- .. Why I love my parents.
- .. Happy the match that kindled the flame.¹
- .. The pros and cons of political parties. (The subject was suggested as being suitable for senior classes as a means of deepening their social studies).
- .. The law of compulsory education and its value to the State of Israel.

1) Translators note: though the implication is clear, it should be pointed out that this is the first line of a well-known Hebrew poem.

- .. The value of science in our generation.
- .. Never be disappointed in mankind.
- .. Is there such a thing as a typical Israeli, and if so who is he or she? or, Is there such a thing as a typical kibbutz member, if so how would you define such a person?
- .. To think in an ordered manner and to be able to express one's thought in a logical fashion is one of the most important skills high school pupils must develop.

II) Description of Class Work

1) The Instructions

Directives given to the teachers asked them to devote one lesson period a week to written expression (as distinct from "language", formal grammar instruction), and in this weekly period to teach various aspects of written expression with the help both of their own material and of that supplied by us. They were asked to pay special attention to the setting of homework and to assign at least six compositions in the course of the year, one of which was to be set as homework.

2) Implementation

Just how these directives were followed became obvious to us from the answers to the questionnaires sent to the teachers at the end of the year's experiment.

i) Compositions

Most of the teachers concerned fulfilled our request with regard to the assigning of compositions: of the 17 teachers who completed and returned the questionnaires, one assigned composition writing only once every two months, seven assigned such work once every six weeks (i.e. they assigned six compositions in the course of the year), two assigned compositions once every five weeks; five, once a month; one teacher twice a month; and one other set short pieces once a week.

Frequency of Composition Setting	4 per month	2 per month	1 per month	1 per 5 weeks	1 per 6 weeks	1 per 2 months
Number of Teachers	1	1	5	2	7	1

Of these, 62% were written in class, and 38% set for homework.

How did the teachers handle the compositions?

The majority of the teachers gave their pupils guidance before assigning the work, only two dispensed with prior guidance. Guidance consisted of the following: A general discussion of the topic assigned (12 teachers); the raising of relevant points as regards content (2); discussion of the purpose of the composition (1); discussion of ways of writing the composition (1); writing of paragraph headings in class (4); examples of developing the subject in class (1); the writing of one paragraph in class (1); directives of a general nature, such as "write briefly" (1); or "pay attention to punctuation" (2); "use clear language" (1); or, general instructions concerned with the actual structure of the composition (1); or instructions which directed the pupils' attention to these

aspects of written expression with which the class had been dealing at the time, (1).

The majority, 16 out of 17, devoted a special lesson to the return of the compositions. What did they do in these lessons? Three of the teachers said that they read the class some of the best work; twelve answered that they pointed up faults which had emerged and spent time on their correction; of these one teacher said time had been spent on correcting faults in prepositions, while another singled out punctuation. Seven had devoted time to correcting mistakes in the structure of the individual sentence, three had concentrated on correcting paragraph structure (one of these had confined the matter to correcting only the opening sentence of the paragraph), while seven stated that they had pointed up corrections in overall structure. Six teachers said they had discussed the way in which the subject was introduced in the composition, while six also pointed up the relevance or otherwise of the material used. For the most part, these points were dealt with through a reading out of mistakes accompanied by comments raised by the teacher.

Five of the teachers did not require their pupils to make corrections. Twelve, however, did make this requirement. Of these, five asked the pupils to correct the mistakes in their exercise books during the lesson in which the work was returned, and after the mistakes had been discussed in a general manner in the course of the same lesson. One teacher used the system whereby the whole class en block joined together in correcting work during the lesson devoted to returning the work. Two of the teachers

insisted that corrections be done in their presence, while ten asked that work be corrected at home.

The same twelve teachers who demanded that their pupils correct their mistakes also supplied the answers to the question of how such corrections were in turn checked: one teacher confessed to never checking on whether corrections had in fact been done; another said that such checks were made only "sometimes", six took the composition books home to check again, two were in the habit of reading either entire compositions or isolated corrected sentences in class, while only one said that pupils' work was sometimes sent back for yet further correction.

ii. Other Matters of Written Expression

As will be recalled, we asked the teachers to devote one lesson period per week to written expression. In answer to our question as to whether they had devoted time to aspects of written expression other than composition writing, three of the seventeen teachers said they had not, while the remainder answered in the affirmative.

Subjects to which they devoted time were as follows (it should be pointed out that they were asked to concern themselves in particular with language problems, with developing thought and with clear expression): personal and commercial letter writing (1), overall composition structure (2), the development of the subject matter (2), the paragraph and its development (2), connection between paragraphs (1), logical overall approach (2), the writing of different types of content in a clear manner suited to both

aim and the scope of the subject matter (2), the prevention of repetition (4), correcting linguistic mistakes (4), idioms (4), punctuation marks (1), the syntax and logic of the sentence (9) (many of the teachers included here formal teaching of syntax not necessarily connected with written expression).

While the spread of subject matter taught was wide and the teachers concerned themselves with a number of different points, not always connected one with another, most of them concentrated on syntax, the correction of linguistic mistakes and the teaching of idioms. Teaching of these issues was for the most part effected through the medium of writing isolated sentences or through studying lists of corrected mistakes and idioms.

iii. Sources of Teaching Material

In teaching these lessons only four of the teachers made use of reference books as a source of material for their pupils, and even then only sporadically. Three used such books occasionally, while ten did not use them at all. On the other hand, 13 of the 17 used the books for their own guidance, and to extend the scope of their own knowledge. As regards exercises, there were also very few who used those prepared by other teachers (including the material we sent them). Few, too, compiled their own sets of exercises. Only 8 of the 17 used exercises as teaching aids.

As opposed to this, many of the teachers made up language drills based on their pupils' compositions: 13 answered affirmatively on this question. Nine teachers based their language work on the work done by

the pupils in literature classes or in book reports.

It thus becomes apparent that in actual practice, work on written expression was confined within the framework of teaching and assigning compositions. Additional exercises, to the extent that teachers used them at all, were also built largely on the pupils' own compositions and similar work. Thus it follows that most of the work, that is to say, the correction of mistakes which occur in the pupils' work, was in fact geared around curing the ills rather than laying the foundations for healthy work by putting forward working methods for the pupils' use. The teachers were very familiar with this system and did not see much point in the use of material drawn from the reference books recommended to them, or in fact, in any of the material sent them. And interestingly enough, most of the exercises in the reference books are themselves based on frequently encountered mistakes and their correction.

iv. Use of the Lesson Period

As far as the work itself was concerned, the teachers in the group were confused and did not know exactly what methods to use, and how best to utilize the weekly lesson period assigned for written expression. Though teachers joining the experiment originally agreed to devote one period a week to this subject, in actual practice only four of the seventeen who answered the questionnaire honored this agreement. (One of the teachers had a total of only four lesson periods per week for Hebrew literature and language, two of them had only five and one other, only six.)

Four teachers devoted half a lesson period per week to composition expression (out of a total of only four Hebrew lessons per week), while three spent a half a weekly lesson in language drills only (four spent no time at all on such language practice).

Four teachers added language drills to their regular Hebrew lessons, from time to time and in a haphazard manner, while the majority, eight, spent one lesson a week on grammar, composition and language drills together (of these, two spent two lesson periods a week in this way).

f) The Teachers' Impressions of the Usefulness of the Methods They Used

When we asked the teachers how useful they thought the methods they were using were, ten of them answered that they had doubts concerning the outcome of their work; five of them answered that they thought what they were doing was fairly useful, and two of them expressed positive satisfaction with their work (one of these is a teacher who has evolved, and works in accordance with his own system).

Teachers were also asked to answer the following question: "How do your pupils react to the methods you use?"

It is, however, difficult to draw any conclusions from their extremely incomplete answers. Six of the teachers claimed that their pupils were interested in exercises which were not based on mistakes occurring in their own compositions, five said their pupils showed no interest in such exercises. Pupils of three of the teachers were said to have corrected the mistakes in their compositions because they themselves were interested, while one

teacher said the class was not at all interested in such corrections (this, of course, is not a complete picture of the situation). One teacher pointed out that his class enjoyed finding mistakes in the local press, while another claimed that his pupils enjoyed composition writing.

The answers seem to give the impression that random and undirected work is generally unsatisfactory as far as the teacher is concerned, even if most of the teachers do not see a way of improving things. Among the observations and suggestions we received via the questionnaires, we continually encountered requests for some method, for some textbook, for material not based solely on the pupils' work, for "live" material from the press, the radio or local advertising.

g) Summary of Work Methods - as Expressed by the Teachers

It is possible to summarize the answers given by the teachers who returned the questionnaires by saying that while all of them showed considerable willingness in their work, most of them did not succeed in building a complete year's teaching program: they tried to compile exercises and became disappointed; they tried taking exercises from whatever source was to hand and failed to maintain their impetus; they tread the familiar path of assigning and correcting compositions, but here, too, for the most part they failed to demand corrections from their pupils. What was particularly lacking was direction and knowledge of what should be taught and in what order. A similar picture emerged from the reports of those teachers who participated in the study days.

h) Implementation as Seen by the Control Group Coordinator

The group coordinator made a number of classroom visits to the teachers in the control groups. The picture which emerges from the reports he compiled on these visits is similar to that emerging from the questionnaires. In lessons he observed, and in which the teachers were specifically asked to teach composition, four of the teachers gave lessons concerned with formal grammar (vocalization,* morphology and syntax, without relating these to writing or expression) and one teacher was even giving a literature lesson; five evaded any such visit to their classes and contented themselves with "just having a talk" with the coordinator.

The percentage of those who were found not to be giving the agreed lesson in written expression when the check was made by the coordinator is seen to be quite substantial, when we recall the fact that the control classes originally numbered 26, and involved 21 teachers.¹ Perhaps too, it is an expression of the confusion which seems to exist among teachers of this subject.

In those observation lessons in which teachers were concerned with composition teaching, most of them concentrated on the following issues of written expression: composition structure, the correction of mistakes and the precise use of words, the rules of punctuation, syntax and idioms;

1) A number of classes fell out of the sample because the teachers did not send us the composition and examination written at the end of the year. This occurrence, too, is significant.

* Translator's note: Written Hebrew usually dispenses with the vowels which are placed above, below and sometimes inside the letters. But the correct placing of the vowel can alter the meaning of a word, and when there exists any possibility of ambiguity, the vowel must be inserted. Knowledge of where to put the vowel is grammatically important and not at all easy to learn.

the exercises used were varied and the idea presented were good.

The coordinator talked both to the principals and to the subject teachers and then presented a report on his observations and discussions:

i) Report of Visits to Control Classes

Principals' Opinions

The attitude of the principals of the participating schools was extremely positive, even if not all of them placed much hope in the outcome of the experiment. They deplored the lack of planning, system and staff for the teaching of language. Their complaints can be summed up as follows:

- 1) The syllabus laid down by the Ministry is not one which can be implemented.
- 2) The material set for examination in the school leaving certificate examination taken in Grade 12 (age 18) is unsuited to the level of knowledge possessed by the pupils and sometimes even exceeds the bounds set in the compulsory syllabus (both as regards grammar and written expression).
- 3) There is a lack of suitable text books. The books which are available lack precision, method and grading of subject matter in accordance with the level of the various classes.
- 4) The publications of the Hebrew Language Academy do not reach the schools and no real attempt has been made to adapt language innovations for teaching purposes.
- 5) Teachers of literature do not have sufficient knowledge to

give correct language instruction on a secondary school level.

6) Teachers are given no guidance.

Teachers' Opinions

Teachers taking part in the control group experiment and visited by the coordinator can be divided into three categories:

1) Three who do not regard themselves as language teachers, but only as literature specialists.

2) Six who are interested in the teaching of language, but who lack suitable knowledge in the subject.

3) Four who were trained as language teachers.

The ratio of those trained as language teachers to those who have not received any such training is, therefore, four to nine.

(During the course of his visits to the various schools, the coordinator also spoke to other teachers who were not part of the control group. The situation among these other teachers was similar, four of the teachers he spoke to were teaching language, but had been trained to teach literature only; only two were properly trained to teach Hebrew language).

The teachers see many difficulties in their work:

1) The number of lesson periods available is inadequate to the demands of Hebrew teaching.

2) The amount of material to be covered and the excessive demands made as regards literature and grammar leave little opportunity for time to be devoted to written expression.

- 3) The material is improperly demarcated according to classes and in accordance with the number of lesson periods available.
- 4) Books on syntax are unclear.
- 5) The teaching of language and especially written expression is difficult (both as regards the material to be taught and as regards didactic methods).
- 6) The correction of exercise books is a heavy burden.

. The Teaching of Composition

Some of the teachers do, in fact, teach composition and try to obtain their own material, such as the workbooks used last year during Stage A of the experiment (in the experimental classes, the exercises written by Dr. Nehama Leibowitz, "How to Write a Composition" by S. Nahir, and "Lessons in Composition" by Mordechai Kashtan.) Not one of them works through any of these books in a consistent manner, nor do their pupils have access to the books. A few teachers compile their own exercises. There is no system to be discerned in their teaching.

Due to inexperience, the teachers try to accomplish too much and seem, for some reason, to feel that a large number of subdivisions and paragraph headings in regard to each topic assigned will somehow produce a better composition. Thus the work exceeds the pupils' powers of concentration and their abilities to sieve the material.

Class discussion prior to the assigning of composition work, whose main aims are the developing of logical thought, keeping to the point, achieving continuity of ideas, and the relating of each detail to the main

subject, is, in these classes, sometimes turned into grandeloquence and overwriting on side issues, e.g. the insertion of unnecessary details on modern man and on the radio in a composition entitled "The Influence of the Radio on Modern Man", rather than treating of the influence of the one on the other. There is no guidance given in changing the tone of the writing to fit the level of the reader. For the most part, the compositions are not assigned in response to any natural situation such as a summarizing of lessons, the writing of comments on a certain issue, the summarizing of a leading article in the press, the analysis of an essay written for a history or scripture class, drill in writing book reports, etc. Compositions are too unvaried as regards style.

The teaching of composition is mostly at the stage of paragraph writing at present. The teachers are alert in their work and ask that the field be widened.

The Teaching of Syntax

Syntax is taught mainly along the lines suggested in "The Elements of Hebrew Syntax" by M. Yoeli, and "The Principles of Sentence Structure" by S. Nahir. Most of the teachers in the control classes have no wide training in syntax and if they come up against a syntactical problem to which neither of these two books can provide the answer, they are indeed placed in an embarrassing position. The teachers concerned have learned the rules laid down in these books, but are not capable of manipulating them, they cannot use examples taken from everyday language, nor are they capable of conveying to their pupils any consciousness of the sentence and its internal logic as a separate entity. Teaching for the most part is based on an analysis

of the sentence rather than on sentence construction and the changes that must be made in a sentence in order to fit it to the thought of a writer. Hebrew teachers do not make use of the system of teaching sentence patterns, a method familiar to the pupils from their study of English.

Despite the difficulties, it should be pointed out that lessons in syntax do succeed in arousing the pupils' interest, especially among those who are possessed of some healthy instincts for language. Teachers are inundated with questions to which their answers are not always correct. In the light of this position, one can well understand their request for guidance as to material, methodology and a textbook on syntax which takes into account modern influences and methods of expression.

Language Drills

Material is taken mainly from the book "Be Exact" by Y. Bahat and M. Ren. It is taught in a manner which lacks any system and any prior language basis, superficially and shallowly, on the general principle of "one says this, and not that". Pupils generally remember the various forms of the words they have learned, but are unable to discriminate between them. Generally speaking, the material is learned in an isolated manner, without relating it to writing as a craft, nor are the words and idioms acquired used in any wider context than a single sentence written to demonstrate their usage. There is no variety in the lessons and if the teacher is asked a question other than one pertaining directly to what is written in the text book, the reply is not always properly given. To the teachers'

credit it must be pointed out that they do not use clichés, but on the other hand, they are not as careful in their own use of language as would benefit teachers of this subject.

In most of the lessons observed there was a striking lack of any attempt to teach linguistic innovations,¹ the use of the dictionary, or to make use of such teaching techniques as puns, quizzes, competitions, etc.

The source of the failures is not to be found among the pupils, but rather in the lack of properly qualified language teachers, in the material of the textbooks and, most of all, in the failure to plan language teaching in a systematic program to be taught at each class level.

Thus far the report submitted by the group co-ordinator.

1) Translator's note: Since Hebrew was for centuries divorced from daily use and confined to spiritual issues, the modern language is in constant flux with new words and forms added almost daily. Considerable confusion prevails as to the use of these innovations which makes their teaching in schools essential.

THE EXPERIMENTAL GROUPS

SYSTEM AS OPPOSED TO "NON-SYSTEM"

As opposed to sporadic corrections, teaching issues as they came up, and simply attempting to cope with emergencies in an unplanned manner,¹ we tried instead to propose a method of teaching which was planned in advance to cope systematically with the issues which needed such attention.

In this second stage of the experiment we again decided to clarify for ourselves in advance which problems of written expression we wished to deal with when preparing the directed and graduated teaching program.

The card-index of mistakes (see pages 25-26) served to supply us with answers to the question of what the problems of written expression are.

The general linguistic categories, in which many of the pupils had made mistakes and with which we had decided to deal in the second stage of the experiment, included inter-sentence syntax, sentence syntax, the correct use of words and style.

We constructed the workbooks in such a way that their content would teach the pupils a number of ways in which they could make their ideas clear to the reader. This overall aim was integrated with the teaching of syntax, but it was not directly linked to the categories of linguistic mistakes on the card indexes, nor to their systematic order in philology. Nevertheless, we did try to give attention to each of the categories and to prepare

1) For wider discussion of this point, see general instructions page 174.

suitable exercises for each; further, we took care to see to it that each of the above linguistic issues was mentioned and discussed via the workbooks (see appendix on pages 149-150).

Thus these issues were naturally connected with the problems of writing and were not treated as separate topics to be learned mechanically. Our attitude here was that the pupil does not need to learn the philological description of his linguistic mistakes or how to correct them in accordance with the formal ordering of the language. Further, language problems as such are not the pupil's first concern when he is actually faced with composition writing. The more likely order is that which starts from consideration of the subject, goes on to the manner in which the ideas may be put across to the reader and only then involves linguistic problems. Thus, it was in this more natural order, which corresponds to the writer's stages of preoccupation with his work, that we planned our system of teaching.

APPENDIX

DIRECT AND INDIRECT TREATMENT OF THE CATEGORIES OF MISTAKES
LISTED ON THE CARD INDEXES

Linguistic Issues Dealt With

Chapter in Workbook in which
they were treated

Inter-Sentence

Logical arrangement of sentences
in paragraph

Chapter on logical order
and all chapters concerned
with logic

Discrepancies in inter-sentence logic

All chapters concerned
with logic

Grammatical agreements, implications,
thought connections

Chapter dealing with the
drawing of conclusions,
reasons for methods of
drawing conclusions

Preserving the linguistic unity of
the sentences

Various chapters on syntax

The Sentence

Jumps in logic

Chapters devoted to syntax
and logic

Omitting parts of the sentence

Chapters on syntax

Agreement of different parts of the
sentence

Chapters on syntax

Structure, length and complexity

Chapters on syntax and style

Word Order

Chapter on style

**Prepositions, conjunctions and
relative pronouns**

Chapters on logic while discussing logical relationships, we used those conjunctions, prepositions and relative pronouns which are concerned with indicating logical relationships.

In the chapter concerned with paragraph headings we also dealt with connecting links. There were also other exercises in the various chapters on syntax.

Possessive forms

Chapters on syntax

Copulatives

Chapters on syntax

Punctuation

Chapters on syntax, those on writing, in checking work, in the pupils' checking and in a chapter devoted to punctuation marks.

Style

**Correct use of words, prepositions
and conjunctions**

Chapters on style and objectivity

Cliches, tautology

Chapters dealing with style, chapter on illustrations and abstractions, and one on objectivity, subjectivity and honesty.

Stylistic inconsistencies

Chapters on style

Repetition of words

Chapters on style

WHAT PRINCIPLES GUIDED THE FORMULATION OF THE TEACHING METHOD?

a) Educational-Instructional Aims

The prime instructional and educational aim we set ourselves was to develop the pupil's capacity for logical thinking and his flexibility of mind.¹ This is an aim which is appropriate to every age, and certainly appropriate to our own times when everything is on the move and in a process of flux and when solutions good for today may have to be unlearned tomorrow. Thus we do not want to teach our pupils solutions along the lines of "follow this example!" but rather to say, "problems will be presented to you; how will you go about dealing with them? We prefer to teach the pupil to find his own way of settling problems: we are concerned to teach him how to look for material, how to analyze, how to weigh up facts, how to find evidence and check its relevance, how to draw the correct conclusions, how to deal in abstractions and their illustration, etc.

Such an aim should, of course, be applied to each and every school subject, but it is here particularly strongly applicable to the teaching of written expression: what we have to set out to do is develop the pupil's ability to measure up to the various problems of thinking things out which are likely to face him when he has to express an opinion on something, and to teach him how to clarify his thought both for himself and for the reader.

1) The report submitted by the Harvard Committee "General Education in a Free Society" deals at length with aims of this type.

Thus we come to another central instructional aim: training the pupil to solve problems in writing and equipping him with tools which will help him express himself clearly and precisely. This latter must involve, inter alia, teaching him working methods, instruction in the exploitation of the various methods which can be used in clarifying ideas - e.g. via example and comparison and the precise use of language (for further details on this point, see the following chapter "The System .. which Leads to the Achievement of these Aims".)

From everything stated above, it will become apparent that our aims were not limited to "composition writing", to instruction in the writing of paragraph headings, the teaching of collections of expression, or correcting mistakes, but rather involve treatment of the whole subject of written expression in a broad and comprehensive manner. What we in fact set out to do, was give the young writer a system of work and, at the same time, to include within it the problems of thinking and language with which written expression is involved. To this we also added a significant educational aim: education towards straight-thinking, honesty in discussion and consideration for others -- this latter by presenting writing as an expression of the will to clarify ideas and facts, etc. to the reader.¹

1) See Z. Adar, "The Humanities in Secondary School Education", pp. 34-38, and the forwards to Brooks, C. and Warren, P. "Modern Rhetoric" and Hayakawa, S.I. "Language in Thought and Action".

In order to achieve the aforementioned aims we regarded it as of the utmost importance that a change in the attitude of the pupil (and the teacher) be achieved in respect of composition writing. The principle guiding us was that writing is a skill, and that it must be learned. Yet while this skill is seen as basic and while its importance is clearly understood by everyone, nevertheless, composition is usually seen as a mere adjunct of the teaching of literature (since in most cases it is the literature teacher who also teaches composition, it happens, for example, that most composition subjects are taken from literary or Biblical themes or, occasionally, related to social studies. But this whole attitude is wrong. Written expression should be an essential auxiliary tool in every subject, it should equip the writer with the ability to write clearly on every subject: on the sciences, the humanities and social studies alike. It was this premise which guided us in constructing the workbook and in basing it on the principle that exercise in writing on a variety of subjects is essential and that material from several fields must be included among the exercises.

b) The Principles of the Method Leading to a Realization of These Aims (Methodics)

i) Inculcating an Approach

The first principle underlying the workbook was that of inculcating a correct attitude on the part of the writer to the whole issue of functional writing: his approach to writing, his attitude to the reader, to the subject and to the type of writing being demanded of him.

At the outset, we wanted the writer to understand that functional writing is, in essence, writing for communication.¹ The workbooks were written in such a way as to uproot any of the pupil's preconceived ideas (and they are commonly enough encountered in composition lessons) that he was writing some type of very abstract composition, one totally unrelated to any reader, or at best only intended for the teacher, and then only so that a mark could

1) On the principles of communication and self-expression in writing, and on the idea that they need not be seen as contradictory, see Adar, op. cit. p. 43.

be given for the work. It is true that all exercises and study of this nature, in fact put the pupil in an artificial situation, but even this should be geared to reality. Thus, the workbooks were so designed as to place the pupil in situations which are appropriate to functional writing -- i.e. in the situation of writer-reader.

Having established in the pupil's consciousness that writing is a means of communication, we can then proceed to accustom him to direct his writing towards some presumed reader and to pay attention to clarifying and explaining his thought to that reader. The first prerequisite for this is that what he has to say should also be clear to the writer himself. Thus we must confront the pupil with the need to clarify for himself the purpose and subject of his writing, the scope of the material and its relevance both to the subject and to the presumed reader. We have, then, to bring the pupil to a position of being able to distinguish between the various types of writing and deciding in his own mind and in the light of the subject, the reader and his own intentions, whether he must adopt an expositionary style or one which is rather aimed at convincing the reader. (For the most part the pupil is used to thinking only in terms of "composition", without distinguishing, in his use of this word, between 'artistic' writing and 'functional' writing, between narrative and descriptive writing, between objective

explanation and argumentative and polemic writing).

ii. Teaching the Stages of Working

When the pupil has clarified what needs clarification, he can proceed to organize his methods of work. Thus the second principle of the workbook was that of inculcating work habits and teaching the pupil the appropriate work methods. Since the first stage of the experiment had devoted considerable attention to teaching the many aspects of these work methods, we did not pay special regard to this issue in the second year, and the pupil's attention was drawn to work methods in a more incidental manner, mostly when he was concerned with working on large summaries. (for details see p.).

iii. Teaching Methods of Clarifying the Ideas to the Reader

Following from the basic assumption that functional writing is intended for a presumed reader, one of the most important principles is that of clarifying ideas for the reader. Thus our teaching system is based on the assumption that it is worthwhile to the writer to be in command of a number of methods which will assist him in clarifying ideas and from among which he will be free to choose those most appropriate to his needs. Most of the various sections in the workbook are devoted to teaching different methods and possibilities by which ideas may be developed and clarified.

We quote the following from guiding remarks made during the study day held for teachers participating in the project: "if

the starting point is that the writer has ideas which he wants to communicate to his reader, then the problem arises as to how he can put them clearly and understandably. This is what we must explain to our pupils. We have to say, "Look, we are suggesting a number of possibilities to you which you can exploit. We are giving you a number of tools. If they are suitable, use them; if they are not, reject them." We are teaching the use of all sorts of tools, but this does not mean that we are forcing their use on anyone. What we do is to show our pupils that there exist technical means enough to clarify the ideas we are trying to put over to the reader. You can read the class one of the corrected compositions, a good composition but one which does not make use of definition, comparison and example. Along with this you can read them a second good composition which does exemplify these points and thus show them that every writer uses what he personally needs: the first did not need to use the means we have just mentioned in order to put over his point, while the second did."

It was these principles and guidelines that served as the basis for the construction of the various sections of the workbook.

The workbook is divided into the following sections:¹

Forward: Functional Writing, Some General Remarks

The essence of functional writing, writing for a

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- 1) In arriving at these methods, I was helped by the ideas put forward in: Brooks, C. and Warren, P. "Modern Rhetorics."

reader, expository and persuasive writing,
means which can be used in clarifying issues.

Exposition

2) General Remarks, Treatment of the Subject From Various Points of View

Posing the assumed questions the reader may ask,
helps the writer to explain his point.

Treatment of the subject from various points of view
likely to be of interest to the writer or the reader.
Formulating these various points of view as content
headings.

Information additional to these headings. Various
ways of presenting the issues (expository writing).

Descriptive Method

The objective use of description in functional writing
as opposed to subjective description used in "artistic
writing."

Narrative Method

Objective use of narrative in functional writing.

Use of Examples

The example as an explanatory tool in functional writing.
The common factor linking the example and what is
being exemplified. What is a correct example?

Comparing and Contrasting

Comparison as an end in itself and as a means of
clarification. The common factor in the two

sides of the comparison. Building the composition by means of comparison. Use of prepositions and conjunctions, expressing comparison and contrast.

Classifying

The principles of classifying their importance in formulating a clear picture both for the writer and the reader; their value in constructing effective headings.

The Method of Definition

a) The Ladder of Abstraction

Concretization and abstraction, reliance on personal experience. The fallacy in remaining at the bottom of the concrete "ladder" and the weakness of empty abstractions and generalizations.

b) The Definition

Logical principles of definition, definition regarded as a training in logic more than as a means of clarifying one's thought to the reader. The difficulties in definition.

c) The Extended Definition

Methods leading towards the broad definition, the origin of the words (Latin and Greek), use of a term in an earlier age, the history of earlier implications

of a term given as a background their present implication,
expanding the discussion into different areas in order
to locate the exact area, developing the definition
through the use of examples, comparisons and contrasts.
Use of dictionaries, encyclopedias and reference books.

The Method of Analysis

a) Analysis of Structure

The efficacy of analysis in clarifying an issue,
discovering the structure of the analysed fact,
pointing up the various components and the relationship
existing between them. Descriptive analysis and
analysis of the function.

b) Chronological Analysis

An analysis of the time order as a means to clarifying
the overall picture.

Use of prepositions and conjunctions denoting time
in order to signify time relationships.

c) Causative Analysis

i) Determining the aspect from which one wants
to explain something, for the point of view
taken can sometimes determine the field to which
one will look for reasons.

- ii) Consideration of the circumstances: were the circumstances and background such that the event can really be ascribed to the reason put forward?
- iii) Distinguishing between a real reason and an apparent one.
- iv) Is there but one reason, or are there, instead many; what is the relationship between them?
- v) Systematic presentation of the reasons and their systematic examination.
- vi) Use of conjunctions and causative prepositions and conjunctions.

Summary of Section on Exposition:

Analysis of the use of different methods in given expository texts. Writing composition based on work learned in this section: the main point here should be the choice of methods of written expression which equally serve the subject, the writer and the presumed reader, and the correct use of these methods. Teaching the organization of writing according to its various stages (see pages 58).

Persuasive Writing

Subjectivity, Objectivity and Fairness in Written Expression

The principle of discussion is dialogue. The appeal to intelligence and the appeal to emotions and desires. The danger of prejudicing the discussion by the biased way in which one phrases one's thoughts, i.e. influence exerted by feeling and associations. Analysis of newspaper articles, publicity material and propaganda writing.

Putting Forward the Claims to be Discussed

The manner in which the issue to be discussed is presented has a bearing on the character of the discussion. Distinguishing between factual claims and those dependent on special pleading. The insidious introduction of prejudice via the wording of a particular point of view.

At Which Point Does One State One's View?

The point to be established should appear at outset of the written piece.

The danger inherent in a dogmatic expression of the writer's opinion at the very outset of discussion.

Where should the conclusion appear? Generally speaking, at the end of the written article.

Evidence (facts or opinions)

Is the fact really a fact? (can it be proven, can it be verified, can one really adduce reliable testimony in its support? If the proof put forward for a certain claim is an opinion, does it sound as if it emanates from some reliable source or some source possessed of experience in the particular field under discussion? (Analysis of political articles and publicity advertising.)

Reasons and Proofs

Examination of reasons in a given text in the light of the following questions:

Are the reasons relevant to the point at issue?

Have some aspects of the point under discussion been left unsupported by the reasons adduced for the stand taken?

Have some of the reasons advanced in support of a certain stand been needlessly repeated, do some of them partially overlap each other?

Are there, among the reasons adduced, some which in fact, contain more than one idea?

Traps Waiting for the Unwary

The same term used with different meanings within

the same reason.

- .. Reasons which are open to questioning in the light of their own lack of foundation. This is especially dangerous when the writer is in any case walking round in circles in an endeavor to establish his point. There must be a real basis for every reason adduced.
- .. Evading the issue. e.g., instead of keeping to the point under discussion, the writer goes off at a tangent to conduct a personal attack on his opponent.

Drawing Conclusions from the Facts

The conclusions to be drawn must really derive from the facts adduced by the writer. After weighing up all the issues, the conclusion may well be "I have no real answer". The facts must lead one to the conclusion. Some accepted ways of drawing conclusions from the facts at our disposal are: induction, analogy, deduction. What are these principles of logic, what is the correct way of using them, what traps await the unwary in using them?

Ways of Presenting Conclusions

Words used to connect reasons adduced in support of an argument or point of view and the presentation of the final conclusions, further linguistic methods

used in presenting conclusions, the logical connection existing between the manner in which one presents one's conclusions and the earlier claims adduced.

The Logical Order of Arranging the Written Work

Constructing a plan for a persuasive article in accordance with the logical order of the ideas to be presented.

Connecting the Ideas

Different possibilities exist here: a) internal connection without any special connecting framework (when there exists a flow of ideas, when points are raised chronologically); b) connections established with the help of a connective thread:

- 1) A connection which clarifies the logical relationship existing between various points (cause, result, contrast),
- 2) Stylistic connection adding a point to those which preceded it, clarification, implication, repetition and extension.

Summing Up Exercises for the Chapter on Methods of Persuasion

Class discussion and written work (revision of methods of development, construction and intellectual honesty).

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Style

Precision in the Use of Words

A common language must exist between the writer and the reader. The implications of a word used in a certain context may differ from those it has in a different connection. The right (i.e. the one with the exact shade of meaning) word in the right place. Distinguishing between the different implications of words, the use of dictionaries.

Cliches

The avoidance of words empty of all content in a given context; cliches and generalizations.

Tautology

Needless repetition of ideas is a weakness. Distinguish between empty repetition and repetition which is intended to serve a special purpose.

Repetition

Repetitious use of the same words is a stylistic error. When and how can one avoid this pitfall?

Word Order in the Sentence

Faults in word order within the sentence.

Changing the meaning of the sentence by changing the order of the words.

How Can Important Points be Stressed in Writing?

Methods of emphasis which cannot be recommended;
the possibilities that do exist.

- a) Emphasis by means of a purposeful change in the order of the sentence's components.
- b) Emphasis achieved through repetition - the advantages and dangers of this method.
- c) Placing part of the sentence (or the paragraph) on its own, thus signaling its importance by its isolation.
- d) Purposeful use of certain words.
- e) Emphasis achieved by giving more space to the important point.
- f) Emphasis by means of a special arrangement of all the points within the total framework of the article.

Different Types of Language

Transition from the language of everyday speech,
from the dry terse style of office communications
or from literary language to the fluent style of
functional writing.

Confusion of Styles

A mixture of styles or of various types of language (e.g. mixing Biblical and colloquial language), which is not intended to serve a special literary purpose, is both upsetting and laughable as far as the reader is concerned.

How to write an article in one consistent style when it is based on material written in a number of different styles.

Expressions and Idioms

Citing idioms and quotations - in the original words; is their use correct in the given instance? Have they been properly worked into the sentence?

Punctuation Marks

The correct use of quotation marks, abbreviations, and other punctuation marks.

The Use of Such Literary Effects as Imagery

Metaphor, etc. in Clarifying Ideas and Conveying Feelings

What is the idea being expressed, from what areas has the writer taken his descriptions or his imagery, what impression is given by the writer? There must be some common ground between the imagery used and the subject to which it is attached. It is wrong

to use such effects inappropriately, or to mix the metaphores being employed.

Summing-up Exercises

- a) An analysis of texts in the light of set questions.
- b) Written work designed to sum up what has been learned.

Working the Teaching of Syntax into the Teaching of
Written Expression

There can be no discussion as to the fact that the structure of a sentence is of decisive importance in all written expression. Proof of this, based on real calculations, was also provided in the course of our research: in the first stage of the experiment (1962) we made a number of correlation calculations regarding the various aspects of written expression (for details of the various aspects see p. 92). These calculations showed that sentence syntax was most strongly connected with every other aspect. Of all the aspects, it was syntax which showed the highest correlation with the others. In other words, "syntax is the very core of composition".

In the light of its great importance, the profound neglect of the subject becomes even more obvious. Every teacher immediately remarks on it when reading pupils' work.¹ The card index of mistakes which served as the basis for our experiments further pointed up the enormous number of

1) The point has also been remarked upon in a number of local publications by educationalists.

errors in sentence and inter-sentence syntax alike. And yet all school pupils are taught formal syntax both in elementary schools and high schools. It would seem, therefore, that there is no transfer from the formal learning of syntax to the writing of a correctly structured sentence when the latter becomes part of written expression. It is because of this failure to transfer that we are all familiar with the pupil who excels in formal clause analysis, but who writes sentences of his own which are full of syntactical errors.

Thus, we have tried to suggest that the teaching of syntax be closely integrated with that of written expression. In so doing, our purpose was to stop the study of syntax from being regarded merely as an analytic issue, and instead to endow it with the status of an essential tool in written expression.¹ The intention was not to abandon the formal teaching of

1) "...The grammar of a language ... to a grammarian is a description of the forms, structures and grammatical functions of common occurrence in the use of a language, and of the way that these play their part in various situations in each life - one of their main purposes being to express meaning."

"...the study of grammar, therefore, should mean the study of the forms, grammatical functions and structures of language in close association with the meanings they express."

"...The needs of school pupils are to gain some measure of control of language, to have some inkling of its potentialities and of its limitations as an instrument of expression."

P. Gurrey, "Teaching English Grammar,"
London, Longmans, 1962, p.45

"...The analysis of form separated from meaning may be lawful and useful to some extent to the structural linguist, but it cannot serve the purposes of the teacher and it does not have any psychological significance."

Renzo Totone, Grammar Learning as Induction
IRAL III/1 (1965)

the subject, which certainly has importance in the knowledge of language. Thus we proposed that the teachers in the experimental classes set their pupils summing-up exercises for the end of the year designed to show a whole syntactical picture of the language. What we wanted to do was to add an extra dimension: functional teaching. Within this functional teaching we did not simply content ourselves with correcting the poor syntax of isolated sentences, but, through a multiplicity of exercises which applied syntactical issues to writing, we strove to strengthen the connection of the latter with the whole issue of written expression.

The workbooks were so constructed that different syntactical structures were discussed and dealt with in conjunction with those issues of written expression in general which stood closest to them in thought and to which the syntax learned was most likely to have real application in writing. Thus, for example, in the chapter on written expression devoted to reasons adduced in support of a certain attitude etc., syntax lessons on causative forms were given. The emphasis in these lessons was placed on the possibilities of using the various syntactical constructions, the prepositions and conjunctions dealing with relationships and connections which denote logical relationships and too, on correcting the common and characteristic mistakes which occur in the syntax of such constructions.¹

In this way the pupil works through a whole course of syntax in the course of his year's work; but these sections are closely integrated with

- 1) Instructions given to teachers also stressed that they were to pay special attention to a constant interplay between syntactical issues and those of written expression in general, this was to be accomplished in their class remarks, in correcting pupils' work, and during the actual teaching of syntactic constructions.

appropriate issues of written expression in general and thus he learns to make use of the various syntactical structures within the framework of and in accordance with the needs of his written work.

In our method of teaching syntax, we did not, as is generally done in the teaching of this subject, remain within the framework of the isolated single sentence (even if we did pay considerable attention to the special constructions of isolated sentences), rather, we tried to carry on into the paragraph as a whole, into the entire composition, thus making the sentence an organic part of the complete context.

We wanted to implant into both pupils and teachers the consciousness that syntax is not confined to the framework of the sentence, that it includes too, inter-sentence syntax and the syntax of the paragraph as a whole. In correcting both exercises and compositions, teachers were asked especially to point up mistakes in agreement between different sentences in any one paragraph, or even between the different paragraphs, as, for example, a confusion of tenses, confusing the subject of a sentence in moving from one sentence to another, lack of clarity in referring back to points raised earlier; all these from the point of view of gender and number and other like issues.

The big difficulty which faced us, and which still faces us, is the lack of any normative syntax in standard modern Hebrew, and as long as such principles are not clearly determined by the Hebrew Language Academy we shall remain without any real solution. In formulating the workbooks we left it to each teacher to select the text book on syntax which he personally

preferred to use. It was up to him to use the book sufficiently to explain to his pupils the particular issue being studied, to use those exercises which seemed to him to be of importance and then to carry on with the applicative exercises we had drawn up.

In actual practice the teachers encountered considerable difficulties, since in many of the text books on syntax there are cases of a failure in correspondence between the rules taught and the realities of our modern language, and several syntactical constructions which are of great importance to written expression are not dealt with in the text books.

c) Ways of Using the Workbooks (Didactics)

1) Systematization

The structuring of the workbooks from the point of view of didactics fitted the methodological principles outlined in the previous section. The workbooks, which were intended to teach methods of working and of thinking, methods which are to serve the writer in his task of thinking and expressing his thoughts, were built along systematic lines: both from the point of view of the fact that the pupil thereby knows that in working through them he himself is learning a system, and because in using the workbook, the pupil thus works systematically and by logical stages throughout the whole year.

We asked the teachers to devote the first lesson of the year to a class discussion of the general aims of the system propounded in the workbooks and the general aims of the work as a whole (a summary of these aims was given on pp. 5-6 of the workbooks). We adopted this step so that each pupil

would have some overall blueprint of the gestalt and would thus find his studies easier. We thought, too, that by so doing, pupils would, having grasped the principles¹ and seeing the overall picture, subsequently be able to use what they had learned and apply it, too, to other subjects and different needs for written expression.

The aim of each individual chapter in the workbooks was also discussed before actual study of the chapter commenced, with the discussion concentrated on connecting the work of the chapter with the overall aim of studying methods of thinking and expressing one's thoughts. An example of this approach can be found in the introduction to the section dealing with comparisons and contrasts: "Sometimes you will be able to explain your point very clearly if you compare it to something which is already well known to and understood by your readers. (In this it is similar to using the method of illustrating by examples, which we discussed in the previous chapter.) Such a comparison can be positive (just as so and so is true, so is this and this true); but it can also be negative, thus pointing up the singularity of the new idea you are putting forward (as opposed to.....). The writer has to consider the whole intention of what he is writing and to ask himself what can be gained from making use of the comparison or the contrast, for the aim is always to clarify a difficult point, and not simply to make comparisons for their own sake. The writer will do better if he first clarifies

1) See the reference to the experiments of Skolkow, Judd and Rüdiger, in Arshavsky, S., pp. 20-24.

for himself what the main points of his ideas are, and then decides whether in fact, they have anything in common with the ideas and issues to which he had intended comparing them..."

Sometimes, for the sake of variety and with the intention of creating motivation, of giving a chance for creative thought, for a feeling of intellectual satisfaction, and in order to illustrate the real problems of thinking and expressing thought, a new section does not begin with an explanation and a link connecting it to its forerunners, but with an exercise designed to encourage the pupil into drawing the desired conclusion. Thus, for example, the section on "analysis" begins with an extract from a speech which shows that since the speaker found it hard to define his subject, he turned to the analytic method and embarked on an explanation of the various principles involved, using this to help him in treating the subject. The pupil is asked to answer a number of set questions, there follows a discussion and the drawing of the conclusion: "Here we see an example in which the difficult path of definition was abandoned in favor of analysis which is one of the most useful methods in clarifying our thoughts." From here, the pupil goes on to a study of the elements of such analysis and to exercises in their use.

The systematic approach of the workbooks is emphasized not only in that they connect individual sections to the overall aim, but also in the summing-up exercises which revise already learned material and organize it into a unified body. For the most part, these exercises are set at the end of the individual sections and always appear at the conclusion

of the study of a complete issue. Thus, in the section devoted to concluding the work dealing with exposition, we find the following:

"We have dealt, down to this point, with the various methods which can be used in expository writing (description, narrative, example, comparison and contrast, classification, definition and extended definition, analysis of the structure, chronological and causative analysis). Now, when you are faced with writing, you will be able to choose several of these methods, whichever seem best fitted to clarification of your own ideas, using them either singly or in combination.

Exercise 1: Which methods have been used by the writer in the following essay? (Pupils were given an extract from "On Liberty" by John Stuart Mill). List the methods used in the margin alongside the appropriate passage."

Exercise 2: Choose one of the subjects for an expository composition as listed below; if you prefer, you may select a subject of your own provided that you first receive your teacher's permission. Gather material (both your own ideas and those from various other sources) and list it. You will find it easier if you write down all the various points on filing cards, listing the source book, its author, the page where the idea or fact occurs, and titling the card with the major area of thought or fact into which the information listed falls. Then sort the information into its various spheres, arrange the ideas, decide for yourself what aspect of the problem you want to deal with (write major and subsidiary paragraph headings)

and prepare the composition plan. Remember to establish links between the various paragraphs. Think of the ways you will use to convey your ideas to the reader, in addition to merely presenting the facts; and remember that you are aiming at explaining your ideas, in full, to a reader who is not an expert in the field of your discussion. Write down, alongside the paragraph headings, the methods you propose using to develop the idea further. Be flexible in your use of the methods you have been taught, choose only those that are really of use in this particular instance.

Now that all your material is listed on file cards, the plan prepared according to paragraph headings and the ideas for further development ready, you are in a position to go ahead with the actual writing.

Check through your written work, correct your phraseology and punctuation, copy out the draft tidily and hand it in together with the headings and your notes for development.

2) Revision

The didactic principle of revision of previously learned material and additional exercise in such work was one which we also adhered to throughout the whole course. Thus, for example, in the section dealing with logical order in the arrangement of the various points made by the writer, the pupil is given an article to analyze. He is told: "a) Prepare major (general) headings and subsidiary headings (i.e. those that put forward the core of the ideas- content headings); b) Justify the logical

arrangement of the article. Which points are put first, which later, and why? c) Which of the methods of persuasive writing that we have studied have been used here? Signify by listing the line numbers." Question "a" thus provides a revision exercise of the material learned in the section itself, while "c" provides a more general revision.

Sometimes the revision work took the form of exercises whose principle was to train the pupil in checking and correcting his own written work: at the end of section 7, which is concerned with the methods used to present conclusions, the pupil is referred back to what he himself wrote at the end of Section 6, which was concerned with methods of arriving at certain conclusions (and at that stage he still had not learned how to present these conclusions). The exercise asked him to recheck the conclusions advanced in exercises 2 and 3 of the section dealing with deductions, to ask himself whether he had in fact connected the work together in a proper manner and, where there existed such a need, to make the appropriate corrections.

Or, another example, in the section dealing with tautology:

- a) Start reading the sentences listed below and carry on until you can detect the fault which is common to all and of which this exercise wishes to warn you. Write down what this fault is.
- b) See which of the sentences can be corrected by striking out certain words, and which cannot be so corrected because of the way in which the sentence has been constructed.
- c) Suggest ways in which ten of the sentences can be corrected.
- d) Now go back over

your composition book, choose a composition that has not been corrected by your teacher and see whether you can find examples of the fault we are concerned with here in your own work. e) If you can find such faults, correct them! f) Check your composition again and if you find any superfluous words, strike them out.

We saw this self-improvement as constituting an important didactic principle even if at the same time we were fully alive to the difficulty of carrying it out within the classroom.

3) Exercise in the Various Aspects

Since we had arranged things in such a way as to ensure an overall unity, we were able to turn to and deal individually with, those issues which formed only part of the whole, at the same time seeing to it that pupils were given plenty of exercise in these various aspects. (This system breaks with that which usually obtains when the teacher must work such teaching into the "composition" lesson, a situation which places the pupil in the position of having to maintain a running fight with the various problems posed by written work within the framework of the whole composition.)

Thus in fact, each section deals with a specific aspect of thinking and expression, at the same time providing exercises in this issue. These exercises are both exercises in thinking, where the pupil is not required to deal with direct expression, and those in which he uses, in his work, what he has learned. When he comes to the actual writing of the composition, he is also able to concentrate on a limited issue. We

cite the following as an example: in the section dealing with comparisons, the following exercise is set: "You are to write an article on the kibbutz. The article is intended for a non-Israeli reader. Explain the quality of a kibbutz by the use of comparison (similarity and dissimilarity) with a family or a beehive. First write down the points of your comparison, then arrange and order them as headings for the paragraphs of the article (use major and subsidiary headings). The basic problem here was putting forward and making use of appropriate comparisons, and not the linguistic problems connected with just what words were to be chosen to express the ideas. Therefore, the pupil is only asked to cope with those stages which will lead him up to, but no further than, constructing the skeleton of the article.

Similarly, in the section which treats of how to find in a systematic manner those reasons which are relevant to proving the issue under discussion, the pupil chooses one of a number of given subjects, or, one which he personally proposes and which the teacher too, is prepared to accept. He then writes down the various areas which the subject touches upon, adduces all the reasons which occur to him in support of his point of view, checks them, sorts through and arranges them as they will be dealt with in the plan of the composition. He is then asked to develop the two which seem most important into full paragraphs, paying special attention to proper connections between the various points, and checking linguistic expression and punctuation. Here, too, the pupil does not write the entire composition, but rather concentrates on the particular problem under dis-

cussion at this stage, but at this stage he is also concerned to a limited extent with linguistic expression and proper connection.

Sometimes the pupils work piece-meal: in one of the exercises in the sections dealing with expression they are asked to write paragraph headings. In the section following, that dealing with some syntactical problems, they are given the following instructions: "Develop the headings written previously in Exercise "X" into a complete composition. Check the syntactical structure of the sentences and correct what ever needs attention. Try to rewrite one paragraph in a number of syntactical styles, choose the one which seems best to you and give the teacher all the various versions. Check and correct the punctuation!"

But though he works in this piecemeal manner, nevertheless, the pupil is made aware of the totality of the work when he writes the complete composition set at various opportune occasions, either as summing-up work of a considerable scale or as part of the day-to-day lesson work in which he is asked to write a composition of one or two pages.

4) Work in Graduated Stages

The various sections of the workbook and the exercises within each were, as far as possible, built up in graduated stages, as regards logical arrangements, difficulty and complexity. Thus, for example, part D in the section devoted to persuasive writing is concerned with evidence drawn from the facts available; the next part deals with proofs and reasons, i.e. the use of the evidence as the writer weighs it in his mind, with this latter point distinguished from the drawing of conclusions (dealt with

in part F), which is the final product of all the various considerations of the subject.

But with all that, we did not follow the principle of graduated learning to any hide-bound degree. If it seemed to us that a difficult chapter nevertheless, belonged in front of somewhat easier material, we went ahead and placed it there, for in essence, the various issues are quite close to each other in level of difficulty. Similarly, as regards the exercises within each chapter: there are times when we have placed an easier exercise after a more difficult one. We adopted this procedure both for the sake of variety and to achieve an occasional slackening of tension. There was, too, the point that we wanted to make it possible for pupils possessed of different levels of ability and different bents, nevertheless, to derive their own satisfaction from the work without giving any of them the feeling that they were always able to succeed in only those exercises which occurred at the beginning of each section, i.e. the easy ones.

5) Class and Homework

The exercises were so constructed that some of the work was dealt with intensively and some a little more superficially, some was done in class, and some for homework, the latter as part of the normal homework allocation in respect of all school subjects.

Thus, aside from the very fact of imparting a correct approach to the subject as a subject in which material is learned and learning development

and progress is felt, and aside from the feeling enjoyed both by pupils and teachers, that additional knowledge is being acquired, the teacher was able both to control the work and to cope with the checking of pupils' written work. The pupils did a great deal of the written work and the exercises at home, with this work being checked, as it is, for example, in history homework, in class, by reading aloud and discussion (with the pupil himself thus learning from his own mistakes, and being able to do his own corrections). Thus, a great deal of pupils' work was heard and corrected throughout the year, together with the occasional taking in and marking of individual books. The work demanded of the teacher in "composition correction" thus assumed a similar level to that expected of teachers correcting summary work or history examinations as regards the large extent of the pupils' written work.

There is implicit in this system the creation of an orderly framework which activates the pupil while not placing so great a burden on the teacher as to render him unable to cope with it (in this it differs from a system in which every development in written work involves the pupil in writing a complete composition which, in turn, involves the teacher in an endless round of corrections). Then too, the pupils themselves come to the realization that lessons in written expression are to be treated in the same way as lessons in any other subject, that they must work hard indeed in order to achieve a good standard. This latter is an important point, for there is a spirit abroad among our pupils which expresses itself thus: "Ah, lovely, tomorrow, it's composition, nothing to prepare for homework."

6) Analysis and Synthesis

Within this orderly framework, we tried to make use of didactic strategies designed to arouse the interest of both teachers and pupils and thus achieve good results. One didactic method, which constituted an important principle in the workbook exercises, was the dovetailing of activities concerned with the breaking down of the various elements and their subsequent building up by the pupils.

The former activity was primarily concerned with the analysis of examples which, it was felt, contained important points from which the pupils could derive benefit in their own writing. Thus, for example, in one exercise, the pupils were given a number of extracts for reading and analysis which contained passages important to an education towards precision in thought: "Prove things! Do not determine anything on the strength of impressions alone!" The pupils were instructed as follows: "1) Write down alongside each passage whether it is closer to the type of descriptive writing used in functional writing or to that used in "artistic" writing. 2) To prove it, underline those words which have lead you to this conclusion." In another case the pupils were asked to analyze some examples with the help of set questions, thus clarifying for themselves the principles which underlay the use of examples as aids to clarification. Immediately after this analytic study, they were asked to write an exercise in which they themselves were required to clarify their thought by using an example, making use of the principles just learned.

Exercises which were concerned with an analysis of examples of poor work, detecting the faults in such work and subsequently correcting the linguistic mistakes, were also seen as belonging to the analytic strategy. In the workbook itself, we included far more examples of this type of material than were actually needed for class purposes, thus leaving the teachers a wide field from which to choose those examples most suited to the individual needs of their pupils. Thus, for example, in the section dealing with word order within the sentence, several badly constructed sentences of graded levels of difficulty are suggested for consideration. The teacher is left free to choose those which best fit his purposes. In the section dealing with cliches, a further large number of negative examples are cited; here the pupil works through the sentences to decide where the fault lies (in repetition, in the use of words for the sake of words, in over ornamentation, in the use of cliches, etc.), but he corrects only those 10 which he personally chooses to correct. We made it quite clear to the teachers that we could not recommend work which based itself primarily on the use of negative examples, and we stressed that wherever they had to cut out exercises for lack of time, it was these that they should choose to omit, giving preference to constructive exercises. In some cases we made use of open-end questions, giving the pupils sentences and passages with words and phrases lacking and asking them to fill in the blanks from a number of given possibilities. In our opinion, this positive method of approach is better than that which asks the pupils to correct mistakes.

Among the analytic exercises were many which warned the pupil off number of pitfalls into which he is liable to fall. At the end of the exercise, the pupil makes his own summary of the "traps" he has noted and immediately proceeds to a constructive exercise devoted to the principles he has just learned. In the course of this exercise he is always asked to check back and correct his own mistakes.

The aim of exercises based on negative examples is, as is well known, to teach the pupils to distinguish between good and bad and to teach them to beware of incorrect usages in their own writing. Without this last point, the whole method is of no value. Thus, after every written exercise, pupils were expected to check and correct their own work, being given clear instructions in each case as to what should be checked and improved.

We tried throughout, to maintain the principle of analysis combined with synthesis. In the section dealing with attributives in syntax, pupils were asked in one of the exercises to underline all such attributives in a given article, then to copy out three such examples where the attributives actually had importance and added information and a further three which were unimportant or even possibly superfluous and therefore capable of omission.

In the next exercise, pupils were asked to write on one of two subjects: "If you could meet with a character out of literature, whom would you choose?" or "If you could have chosen to live in another century, which would you have chosen?" (Both subjects invite the use of attributives.) The instructions accompanying the exercise told the pupils to "write down two reasons for your choice. In wording the reasons expand the main points

by use of attributives. Be careful to ensure that these auxiliaries in fact, add to a clarification of your ideas and to their enrichment, beware that they do not turn out to be your downfall. When you have finished writing, check your work through for syntactical errors." (There follow the points about which pupils are specially asked to take care.)

Sometimes the same exercise contained a combination of both analysis and synthesis. Thus, for example, in one instance the pupil was asked to write a composition concerned with the possibility of life on other planets in the solar system. To this end, he had first to ascertain what information would be useful to him (for this purpose he was given eight short passages written in English, the aim being to teach him to analyze and select information from material written in a foreign language which he would afterwards use in his own tongue, without resorting to literal translation). On the basis of the material which he analyzed, he was then asked to build his own composition.

As we have already stated, the summing up exercises for each section of the workbook consisted first of an analysis of passages which exemplified everything that had been learned, followed by the constructing and writing of a piece of work of quite considerable scope. While the analytic exercises, and especially those concerned with "negative" material, were generally speaking accompanied by exercises which demanded constructive activity, there were nevertheless, a great many exercises whose major principle was one of construction, of activating the pupil. These exercises were complete in themselves, written exercises of varying extent

based in essence, on the use of those methods of writing which the pupil had learned.

In the exercise concerned with drawing conclusions by means of the inductive method, pupils (or small groups of pupils working together) were expected to do some "field research". The subject set was "What are the qualities which make a good friend?" The following were the instructions according to which pupils worked:

"Prepare a number of sheets of paper, headed: 'What are the qualities of a good friend?' Ask as many people as possible to answer this question, writing down those qualities they value on separate sheets of paper. Ask them to list these qualities in order of preference. Number the points in the right hand margin, from 1-10 (10 indicating the most important quality). Now write down in your exercise book all the points the various people consulted raised as their criteria. Add up the points allotted to each quality and jot them down in the appropriate place in your exercise book. Now you can see what the main points are and in what order of preference they have been placed by others. This is the general standpoint, the desired conclusion. As you go through your "research" sheets, you may find some people have given you answers which run counter to the general conclusions you have drawn. Can you explain these special cases? Now go ahead and frame, in writing, the answer to the question given as a subject for this composition."

7) Syntax

Remaining faithful to the principle of construction, we dealt with syntax in such a way as to assure that it later helped pupils in the actual structuring of their work. Thus the study of syntax was also presented in the light of the problems confronting the writer in expressing his ideas: "Expand three of the ideas put forward (in the previous exercise) by means of additional information conveyed via use of the types of clauses and phrases and single words you have recently studied in syntax lessons, (object, adverb and adjective). Write down the various questions on the subject which might occur to the reader, and answer them with the help of such clauses. (Attach these questions to your composition and bring them to class with you.) When you have finished, check your work in the light of the following questions, underline mistakes in pencil, and write in your corrections above the line, this will help you indicate both to yourself and to the class how you have managed to correct your work."

Questions

- 1) Is there any real significance in the additions you have made to the original ideas which formed the basis for this work?
- 2) Does every sentence have a subject and object?
Do the verb and any adjectives used agree with the subject and object in number and gender?
- 3) Have you checked the punctuation (especially full stops, question marks and exclamation marks)?

Special emphasis was placed on the possibilities of using syntactical constructions as aids to the expression of logical relationships. Other exercises resembled the following pattern: In the section dealing with casual analysis which teaches the use of clauses connoting the ideas of reason, result and purpose, pupils were given a passage from which all the conjunctions had been removed. They were then asked to determine the logical relationships existing between the various ideas (cause and result, etc.) and to rephrase the passage, dividing it into paragraphs, adding the conjunctions and prepositions and, where it seemed necessary, changing the structure of individual sentences. All the sentences given were simple ones. When the pupils reconstruct them, they write compound sentences using adverbial clauses of reason, purpose and result, learning the correct use of these forms and of those parts of speech which clarify the logical relationships existing between the various parts of a sentence.

Each time a syntactical point was learned, the connection existing between this point and the section's work on written expression proper was clarified to the pupils, e.g. re-read the last composition in which you made use of descriptive analysis. Copy from it all the compound sentences in which you have used clauses of condition, manner or place, or those which describe one of the nouns appearing in the main clause. Analyze three of these sentences into their respective clauses (main clause, etc., parts of the sentence, etc.) Explain why these types of clauses appear in a composition written according to the principles of descriptive analysis?

In all the written exercises summing up various points of written expression, pupils were also expected to check their writing from the point of view of the syntactical issues learned in conjunction with each specific section. This latter check was, for the most part, achieved with the help of pre-set questions against which they could test themselves. Thus, for example, the following question was set as a check in one instance; "Reread all the complex sentences which you have copied into your exercise books. Check whether any of the principal parts of the sentence are missing either from the main clause or from the subsidiary clauses; check the correct use of conjunctions and prepositions; be careful to see that what you have written is logical; check that commas between the main clause and the subsidiary clauses are all in place. Correct anything that needs correction."

Characteristic of this integrating of syntax with expression is, for example, the exercise summing-up the chapter on persuasive writing. The pupil is asked to do a written exercise. He is then required to check his work from a syntactical point of view. Then he is told to write one paragraph in a number of versions, using various syntactical constructions, to choose the best written of these versions, and to submit all of them when he hands in his work.

A whole section is devoted to the "simple, compound and complex sentence in your writing".

In this section, the following exercise was set:

- 1) In the following passages, underline the simple and compound sentences.
- 2) Change as many of them as you can into complex sentences.
(The passages contained no examples of this type).
- 3) Compare the original passages with the new sentences as you have phrased them. What impression is made on the reader by each different version?
- 4) Now rewrite each passage using the three types of sentences, simple, compound and complex as seems best to you. Don't forget! Your aim is clarity!

Through exercises of this type, pupils were brought to a realization of the various possibilities offered by syntactical structures in emphasizing those points which are of importance to the writer (non-syntactical methods of achieving this aim were, of course, also taught): emphasis achieved by a directed change in the order of the clauses, by means of detaching part of the sentence (or the paragraph) and having it stand alone, etc.

8) Material from Various Sources - Contact With Other Subjects

With the aim of varying the material, strengthening the connection between the study of written expression and other school subjects and bringing home to the pupil the role of written expression as a tool to be used in all the academic disciplines, we set a number of exercises based on material taken from widely divergent fields such as astronomy, history,

the theatre, education, art, botany, biology, chemistry, zoology, philosophy, religion, morals, social studies, political science, political and social analysis of neighboring states and of the problems of our country, sport, mechanics, physics, television, office work, tourism, the state of the roads in Israel, and geography. Some of these furnished us with long texts, others with shorter examples of points being dealt with, some were used as subjects for composition work¹, some as the bases for class discussion.

We also used a lot of material abstracted from the daily press: advertisements, political articles, electioneering speeches, etc. This was used as a basis for teaching the principles of fair discussion and logical thought (one of the passages in the workbook cited a speech which was entirely made up of slogans; on another occasion, pupils analyzed the so-called evidence quoted in a publicity advertisement).

We had, too, a further purpose in this use of varied material: broadening the general cultural horizons of our pupils. In touching upon other subjects and in mentioning names such as Bertrand Russell, Socrates and Rembrandt, accompanied by some discussion of their work, we hoped to stir both pupils and teachers to an interest in matters not directly concerned with the immediate field of study.

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- 1) Thus one of the exercises was as follows: Choose from among the following general subjects, one which appeals to you. Decide on the aspect from which you will deal with it, as they will interest either you or your reader. Subjects: capital punishment, land development, marriage, photography, military discipline, nationalism, charity, Nazism, heroism, the postal services, landscape gardening, diesel engines, manners, publicity, the poet X, the play X.

Treatment of material of this nature drawn from various spheres of interest, both of a concrete and more controversial nature, stirs up interest, forces re-examination of things taken for granted and deters stereotyped thought.

On very many occasions we tried to include "live" material. This was an attempt to link written expression with reality and overcome the all-too-common weakness of detachment, of work tailored artificially to the demands of "writing a composition." Thus, we cited a passage of a speech made by a lecturer in which he explains the difficulty he had in using the method of definition of a subject, so that he eventually decided instead to use the analytic method. In making this attempt, we did not simply confine its implementation to the choice of material, as explained above, but also made it part and parcel of the exercises themselves: "You have been sitting alongside the chairman of the meeting during a discussion of X. When the main speeches are over, the chairman is closed out of the room and you are called upon to take his place. You have the notes he made during the discussion, and you are required to summarize the major points and opinions before a final vote is taken. In making this summary, you must be careful to be very objective. You will find it useful to adopt one of two possible methods in making your summary: go over all the points raised and give the opinions of both sides in respect of these points, or - go over the points raised by each side separately. You will achieve little by merely recapitulating each speech." (There followed a list of guidelines for arranging and writing out the various points to be made in the summary).

In a similar fashion, the pupils also try their hands at writing a formal letter, reports on an activity, or on the decisions taken during a business meeting, instructions, etc.

9) Variety in Pupils' Activities

The didactic principle which dictated the use of variety found an expression not just in the varied nature of the exercises and the material used, but also in the forms of activity demanded of pupils in the various exercises. The construction of the workbook was such as to permit of constant interplay between the various different and connected principles, and we made every effort to ensure that similar types of activity were not of too long a duration. Thus we find a teacher's explanation of rules, and a discovery of these rules by the pupils themselves, demonstration of an issue by means of examples,¹ analysis and synthesis, detection of the absurd and filling in blanks, constructing passages, summing up or drawing conclusions, writing and self-correction, finding the right word or phrase from among a number of possibilities using the same term in a number of

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- 1) An example of going round in circles, with no possibility of descending the ladder of abstraction: "What do you mean by the word democracy?" "Democracy means preserving the rights of man." "What do you mean by right?" "Rights are those privileges which God gave to every man, that's to say, man's natural privileges." "For example?" "Freedom!" "What do you mean by the word freedom?" "Political and religious freedom." "And what does that mean?" "Political and religious freedom is what we all enjoy in a democratic society!" - Be sure always to leave yourself a possibility of going up and down the ladder of abstraction; be careful to keep moving between abstractions and concretizations, take your examples from facts."

different contexts.¹

exercises which make use of humorous material², those which have the character of "research projects", class discussion, group and individual work, competitions and games, library work and the collection of source material, clipping newspaper articles,³ work based on listening to a certain radio program, and the giving of lists, tables and diagrams to demonstrate various issues.

Alongside amusing exercises, light material and comparatively easy exercises, we also cited serious articles, even difficult ones, together with exercises which demanded a considerable degree of thought and a fair investment of effort. This variation in the level of tension maintained is important both for pupils and teachers and enables the teacher to be flexible in suiting the work to the ability of the pupils. We also took into con-

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- 1) Thus, one example. "Move the words underlined to different positions within the sentence. Explain the change that has now taken place in the meaning of the sentence.
 - 2) In the section dealing with subjectivity, objectivity and fair presentation of issues, there appeared the following: "Underline the sentence, in each pair of sentences, which is so written as to influence the reader via his feelings, and the associations attached to the words used:
1a) A joint of roast beef; 1b) A cooked piece of dead cow; 2a) The score was Israel 5; Hungary 3; 2b) The Israel side won a resounding triumph over the Hungarians."
 - 3) In the section on evidence, we find the following: "Analyze and criticize the evidence adduced in four publicity advertisements taken from the daily press. Clip the advertisements selected and attach them to your work. You can choose those dealing with washing machines, toothpaste, soap, automobiles, cigarettes, apartment houses, etc. (Ask yourself, for example, how many washing machines the lady who "speaks from personal experience" has tried before endorsing this as "the best washing machine in the world"?)

own young people are apt to react chauvinistically or in some other biased way. In putting forward these issues we tried to be as objective as possible and to approach them in some fresh manner.

There were a great many exercises which were concerned with consideration for others (i.e. the presumed reader), with respecting one's interlocutor and with rejecting the idea of victory for the sake of victory. Thus, a number of exercises were prefaced with the following instructions: "Whenever you state your own views, whether you are trying to clarify what you are saying, or whether you are trying to convince the reader of the justice of your remarks, it is very important that both of you should be talking the same language, that both of you should attach the same significance to the same words. Thus precision in the choice of words is vital in all written work." Following this come the instructions for the various exercises on the choice of the precisely correct word in the appropriate context.

In the section concerned with traps awaiting the unwary in adducing reasons the following is cited:

"Beware of evading the issue," e.g., instead of keeping to the question under discussion, one may diverge into an attack on the personality of one's opponent.

We did not give the teachers answer books, but at times we did guide them towards the possible answer. By adopting this procedure, we hoped to arouse the teachers towards assisting us in improving the workbook in its future editions. There was a further desirable point to be gained from this procedure: the workbook was built on the assumption that it is not

always possible to arrive at a definite answer to all problems of written expression, there are no infallible prescriptions, the writer must always consider the realities of the situation, the context in which he is writing, the reader, and what he himself wants to put over.

There was an enormous quantity of material in the workbook, far more than could have been covered in the course of a year's teaching. This "over-supply" was intentional, for we wanted to give the teachers a chance to choose and to fit the material used to their own pupils' requirements. Then, too, we wanted to see how various exercises would in fact work out in class, and, of course, some of the exercises were intended for more superficial study, while yet others were meant for intensive treatment. But, even when we take these different considerations into account, the quantity of material still remains very large.

As we finished writing the workbook, we realized that some of the material was perhaps on too high a level as regards a great many pupils. In the light of this, we instructed some of the teachers to reconstruct the exercises using easier material, though we still have doubts as to how much we succeeded in this. It now seems to us that if a further editing of the workbook is undertaken, there should be a graduated choice of passages used in exercises, which would thus make the teacher's work easier.

IMPLEMENTATION

a) The Problem of Covering the Program in the Time Allocated

Teachers of the experimental classes generally devoted one lesson period per week to the study of written expression. Their problem was that

of managing in the time at their disposal, with many of them failing to cover all sections of the course as we had framed it. This being so, they were faced with two possibilities: going as far as they could and stopping at the end of the year, in which case their pupils never achieved a full view of the overall picture; or, selecting certain of the subjects dealt with in the workbook and teaching only these, in which case, too, the course was incomplete. Some teachers who were thoroughly acquainted with the system and had, in fact, helped in the compiling of the exercises, did however succeed in teaching the greater part of the material, but this only affected three classes.

On the first study day held for the teachers some six weeks after the start of the school year, it became obvious that they would not succeed in teaching the entire contents of the workbook. In view of this, we gave the teachers a detailed list of those sections which were to be dealt with intensively, those about which they could be more cursory, and those, which, if need arose, they could omit. By following these suggestions, some teachers (5 of the 9 who answered our questionnaire, with these five being responsible for 15 classes) did succeed in teaching the essential points of the entire workbook. The others taught down to the end of the section dealing with expository writing, adding some further points dealt with in later sections. In fact, if the criterion is that of inculcating some method and approach, then perhaps this could also have been achieved on this basis of this material alone. Most of the teachers dealt with the sections devoted to syntax, though they did not do this in any organized

way, and generally speaking, each section was taught by three to five teachers.

b) How Did They Teach in These Lessons?

1) As This Emerged Through the Report of the Coordinator

The general picture which emerges from observation visits made to the experimental classes is an encouraging one. The teachers were working according to the program set, they showed interest and willingness and displayed a lively concern for the progress of the experiment. Most of the teachers whose lessons were thus observed had grasped the principles of the system and were careful to explain and clarify them to their pupils by linking each isolated exercise to the overall framework, continually repeating and stressing the issues involved.

There were, too, teachers who did not act in this way, either because they did not adhere to the system's overall inclusiveness, or because they paid no attention to the didactic principle of connecting each issue to an overall pattern, particularly when it came to summarizing the work on a certain section and starting work on the next. But, at the same time, these teachers did pay attention, applying the principles of the system while the pupils worked through the exercises.

However, since all the exercises were geared towards the same aim, and since the teachers did grasp these aims and the issue of a correct approach both to the subject and to their pupils, the teaching was, for the most part, satisfactory (see the section on Results and, especially, those results concerning progress made in the use of examples of generalization

and abstraction). But for all that, it still remains desirable that the pupils, and even more, the teachers, should be constantly aware of the whole framework of their activities and the goal towards which they are working.

It is possible that the failure to see the whole framework was due to the fact that the workbook did not have an introduction which was of sufficient scope, and too, that the teachers were still not yet used to systematic working on the teaching of written expression and did not immediately absorb the complete idea of the system. To a great extent, the teachers, too, were guinea pigs. In fact, in order to check the success of the system itself, it would have been desirable if the teachers in the experimental classes could have been more accustomed to the proposed system (in the same way as the teachers in the control classes were accustomed to teaching along their own accepted patterns), rather than learning in the course of teaching. It now seems to us that out of a perhaps over-scrupulous desire to be fair to the teachers in the control groups, and out of a possibly unreasonable expectation of achieving complete objectivity, we in fact, put the teachers of the experimental classes at a disadvantage by not providing them with preliminary courses in the handling of the proposed system.

Possibilities of expanding various subjects, using the material in the workbook as a basis for teaching, became obvious in many classes. Teachers added further examples and illustrations to ensure that the principles being taught were, in fact, thoroughly absorbed. They also made use of additional passages of written material and even of gramophone records (in the latter case, for example, they used a record made by one of the best-known satirists

in the country. It provided an excellent and amusing example of the point being taught, the dangers of using abstractions and clichés in the context of a political speech).

Some teachers proposed alternative subjects for composition which were more in accordance with their particular class' level or taste (this was true, for example, in kibbutz classes), but at the same time, they were careful to see to it that their alternative was of the same type as the one we had proposed and too, that it was suited to the same principle as the one in which we had intended to provide exercise. The same substitution of material had been practised in regard to the passages set for analysis, especially when the teachers thought the passages too difficult for their pupils, but again, their own choices were subjected to the same type of questions as those appearing in our exercises. Thus, it seems that the idea of the workbook was clear enough to the , and that the system lent itself to manipulation in accordance with the needs of each specific class.

In a few classes, a very considerable number of exercises were prepared as homework. This applied not only to exercises on work previously learned in class, but extended, too, to a demand that pupils struggle for their own understanding of completely new work.

Observation of lessons showed that in some cases the instructions we had provided in the workbook were not sufficiently clear. There were, too, some teachers who had difficulty in giving answers to their pupils (no answers were provided for the exercises set in the book). This was, on some occasions, just the point we had wanted to make: writing is a flexible

matter and there are often many possible ways of expression, all of which are in order, so that it is frequently difficult to give a definite and absolute answer to some problems, but not all the teachers were used to such an attitude. Sometimes, of course, the answer was really difficult to find, or unclear; those teachers who have drawn our attention to this point, as they encountered it in their own work, have helped us to improve the workbook for the future.

In only a very few classes (of those observed) did the teachers correct linguistic mistakes made by pupils during class discussion or as they read out what they had written. Some teachers themselves can be criticized on the score of not using fully correct Hebrew.

Pupils showed great alertness in most classes, there were many issues and exercises which seemed to attract them and, most of all, the feeling given was that they themselves were conscious of the challenge presented by the work. Some of the teachers were so successful in arousing enthusiasm for the study of written expression, and for an experiment in improving it, that their classes were keen enough to keep their exercise books so that they could themselves see their own achievements and progress, and later send them to the course co-ordinator. There was one class which worked throughout the year with carbon paper inserted between the pages of their exercise books, sending all the copies at the end of the year's project!

Visits made in the last months of the school year showed that generally speaking, pupils had a good grasp of the following issues: a) the system of working which began with collecting and arranging material, proceeded

to the construction of a plan and concluded with the actual writing and checking of the work; b) alertness to the logical principles underlying issues such as establishing credible causes and drawing appropriate conclusions; c) issues of objectivity, subjectivity and fairness.

The composition work and written exercises read out in the classes visited, gave the impression that the actual writing was still only of a middling standard.

2) As the Teachers Saw the Situation

(Opinions expressed in questionnaires, during visits and in the course of the study-days).

Teachers' comments on the system they were trying out (as these comments were expressed in the questionnaires) show that they found it a good one, both as regards its aim and its main lines (not one single teacher claimed that the system as a whole was objectionable).¹

Most teachers acclimatized well to working in accordance with the workbook (of all the teachers taking part in the experiment, only one said he had difficulty in teaching according to the system,

1) "The system is excellent; there is an improvement both in writing and in the content and selectivity of thought." The question of written expression really says something to them (i.e. to the pupils) - the system and the methods suggested are attractive and efficient."

while another teacher, who liked the system as such, had difficulty in teaching the pupils who formed her class for that particular year.) In answering the question: "Would you be interested in carrying on if the experiment is run for another year?" fourteen teachers answered affirmatively, only one in the negative.

Teachers showed a high degree of interest and alertness. They passed on detailed comments in their questionnaire answers, during the study days and in individual letters. In all of these comments they put forward constructive suggestions for improving various details of the workbook. Oft-repeated comments centered around the following points:

- a) the need for a complete set of workbooks which would be graduated in such a way as to permit their use throughout the various levels of all secondary school classes, since the existence of but one such book cuts it off from what has gone before and what will come after.¹

1) One teacher wrote as follows- "One of my good pupils complained that he always had the feeling that this was a second workbook (ed. note: for him it was - he had not taken part in the first stage) and that therefore, he could not translate the theory into practice, into actual writing. So I must throw the ball back to those who taught him earlier, and did not devote so much as one lesson to explaining the basic elements of writing, to those whose sole idea of composition teaching was to set and correct just a few annual compositions."

- b) The introduction, which is intended for the teacher, should be expanded, as should the linking passages between the sections, which are intended for both pupil and teacher alike.
- c) Some exercises are too long (i.e. those giving passages for analysis and should be cut down.
- d) The number of exercises on correction of work and on analysis should be cut, while there should be more concerned with synthesis and construction.
- e) The amount and scope of the teaching material is too large for one year.

The integrating of syntax teaching with lessons in written expression was endorsed by those teachers who answered the questionnaire¹, but many of them found difficulty in accomplishing such an integration program within one year, both because of the difficulties of dovetailing normally accepted formal teaching of syntax with our type of applicative teaching, and because too, they had trouble in coping with the pressure of all the teaching material within the time allotted.

1) Thus one answer: "The integration of syntax with written expression, strikes me as a good idea, one from which both benefit. The variety thus gained adds an additional stimulus to study."

3) Teachers' Impressions of Class Progress and Pupil Attitudes

In the questionnaires sent to teachers of experimental classes, they were asked to give their impressions of the class' progress. Twelve teachers answered this question as follows: six thought that progress had been made; three thought there had been slow progress; two considered that their pupils' mode of thinking had progressed, but that the standard of actual writing had not; one replied that he found the question difficult to answer.

We also asked the teachers to give their opinions of the pupils' reaction to the system:

- a) Generally speaking¹, ten classes showed a positive reaction. No really negative reaction was encountered in any class. One teacher failed to reply to this question. One said that her average and weak pupils enjoyed the program, while the good reacted negatively.
- b) We asked the teachers if, in their opinion, there had been a change for the better in the pupils' approach to the subject of written expression. Answers were as follows: pupils of eight teachers changed their attitude for the better; two teachers thought there had been virtually no change; two had no information on the point; there were no answers indicating that pupils'

1) There were negative and enthusiastic responses in regard to certain exercises.

attitudes had changed for the worse.

- c) To the question as to whether their pupils felt that they had made progress, answers were as follows: positive - pupils of seven teachers; somewhat - in respect of the pupils of three teachers; no - according to one teacher's class; one teacher gave no answer.

In the long summer vacation following the experimental project, we received the following letter from a pupil: "I am writing to thank you for the help I received in composition lessons this year. During the year itself, I don't think I sufficiently appreciated the workbook you wrote for the project. I thought that the material included in it wouldn't be any more useful than what I had learned previously in Grade 9 and 10. But, it now seems as if I was wrong. Now that it is holiday time, I am working on (and putting a great deal of effort into) the preparation of my annual literature paper. The subject I chose, "Views of the War of Independence as Reflected in Hebrew Poetry", involves a whole generation of Israeli poets and I have a great deal of reading to do. When I first sat down in front of the mountain of material that I had collected, I thought to myself, how will I ever get through it? How am I going to manage to make head or tail of it all?

"It was then that I realized how much I really had learned this year. I made myself a card index of all the various themes which appear in this poetry, and on each 'theme' card, I wrote the names and authors of the poems in which these themes can be found. When I started writing the section that deals for example, with the theme of loneliness, I wrote on

draft sheet all the concepts of loneliness which appeared in poems I had read. At this point I did not bother to work out any special order for them. Then, when I had jotted down this list of random headings, I rearranged them as general headings under which I could include a number of poems and then again arranged them in the order which seemed logical to me. It was only when I started the actual writing that I realized how well I was doing and how, miraculously, all those poems and ideas which had been floating round in my mind suddenly began to assume a properly organized shape.

"Now I am doing the same type of "pre-work" for every section: sorting, arranging and organizing. I hope that when I come to check through the work in the self-critical way you have taught, I will be able to correct all those faults of style which may have crept in, again using the guidelines you have suggested.

"I feel I have to write and say thank you. Perhaps this letter will prove to you that your work really does have its reward. The difference between my mode of working and the organization of my thoughts today and the situation last year is even greater than anything you could imagine.

I hope other school pupils will be given a chance to study with the workbook (or with a regular school textbook arranged along the same lines) and to reap the same benefit in a subject which was once one of the poorest and most dismal of all."

4) Teachers' Comments During the Study Days

The first study day was mostly taken up with questions and requests

for guidance. But by the second day, we already had reactions to the work in progress.

In the words of one teacher: "The system is wonderful. I have given two tests in literature and I can already see a big improvement as regards the division of the work, the way it is thought out and the way the drafts are written. The issue of selectivity in thinking is already showing its influence, and a mathematics teacher who works with my class said to me, 'At last we are reaching some common ground between the various subjects!' Pupils have already absorbed the fact that, for example, to "waffle" is merely to scorn one's reader."

One teacher was giving one written expression lesson a week to a class in office correspondence. The class was made up of pupils from several parallel classes, one of which was being taught according to the research system. In her view, "the girls who come from the experimental class are much better than the others in achieving a logical order to their work and in thinking logically."

Another teacher: "The question of written expression means something to them, you can feel it in their work, in their tests and in their homework (in literature, for example), even in issues of written expression proper."

A teacher who was working with both a science-oriented and an arts-oriented class, claimed that in the latter he needed more time to clarify the various points. He said he was not managing with the time at his disposal and that this was a pity since it was just these pupils who should go deeper and who needed the chance to develop both their thinking and the issue of systematic work. He said he had a feeling that a great deal

of important material in the workbook was being wasted because of the need for speed imposed by the demands of finishing the course in the allotted time.

Another teacher made the plea for the inclusion, from time to time, of a composition subject based on the pupils' personal experiences and emotions. In support of his request, he pointed out that even in functional writing, there is room at times for the personal approach, too. A number of teachers raised their difficulties in the teaching of syntax. A few explained that they themselves were not thoroughly conversant with the material they were expected to teach their pupils. Yet, they were glad to see that syntax and composition work were being integrated within the same course. This was a point especially welcome to teachers of relatively weak classes for whom formal syntax is difficult but who nevertheless, react well to functional treatment of the subject.

The third study day was marked by the large number of teachers' complaints that they were not managing to cope with all the material in the time at their disposal. Some of the teachers felt that the workbook contained material that was difficult for their pupils, especially as regards Grade 10 classes in those schools, where the academic level of the pupils was only average. Some of them asked for more examples, marked in graded levels of difficulty, in order to make their own work easier. The teaching of syntax seemed to be posing the most striking difficulty and we were asked to take out exercises which contained a great many examples of syntactical patterns that were to be learned and copied.

A kibbutz teacher, whose class was not homogenous or selective as regards the level of pupils, related that in the three weekly lessons he had available for the teaching of Hebrew, (literature, grammar and composition) his pupils were not succeeding in assimilating the material learned sufficiently well as to be able to apply it in their homework or in other work which they wrote independently.

On the other hand, the teachers claimed that the work was already showing its effect even in other subjects:^{1 2} teachers of history and mathematics in their schools had commented favorably on the improvements registered both as regards the method of thinking and grasp of work methods, and in the improvement they saw as regards the attitude to the subject.

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- 1) On the question of the desired relationship between teachers of written expression and other subjects, see Adar, Z. "The Humanities in Secondary Education", p. 40.
 - 2) Teachers of other subjects in these classes say that there has been a great improvement in written expression in work they receive from these pupils.

THE METHOD OF THE EXPERIMENT

This section of the report will be devoted to a description of the experiment from the research point of view, including a survey of the activities undertaken by the research workers: the way in which the research population were chosen, the way the sample was determined, the manner in which the data was gathered so that the class work results would be checked, and the manner in which the information was subsequently worked through.

A) The School Population Which Served as Research Subjects

The Population: The principle in selecting pupils for the research project was that they should represent the entire high school population in Israel as regards the type of schools selected, the level of pupils, and the teaching staff.

In order to achieve this aim we selected the schools not in accordance with our own personal wishes, but rather in accordance with the principle of random selection.

The selection was accomplished with the help of lists of schools kindly supplied to us by the Israel Ministry of Education inspectors of Hebrew teaching. The schools were selected at random and subsequently divided into three categories which enabled us to obtain a representative cross-section of the types of secondary education given in Israel:

- 1) Urban academic secondary schools of a good standard;
- 2) Urban vocational-secondary schools, two-year secondary schools¹

1) See translator's note on p. 65.

and non-selective academic secondary schools - all of which were of an average standard;

- 3) Kibbutz secondary schools;¹
- 4) To these schools we added, as a side addition, a course for soldiers of African and Asian immigrant origin. This course, which also followed the method proposed in our research project, was of a preparatory nature for further advanced academic studies and was attended by young men whose school leaving certificate marks were only average or below average.

A check in which we examined the connection between pupils' achievements before the experiment and the school categories as we had determined them proved that our division into categories was accurate: examination of the tests and the compositions showed that there was a significant connection between pupil achievements and the type of school attended according to our classification.

Examination of the detailed table, where all the correlations point in one direction and where the overwhelming majority are significant to 0.01% will bear out this connection. The one aspect in which there is no correlation is that of logic, which cannot be described as an "achievement" in the full sense of the word, and which is not connected, to any very decisive extent, with the type of school attended.

1) All kibbutz children attend school until the age of 18 and their secondary school classes are usually of a non-selective, heterogeneous nature.

Achievement in Initial Examination
in the Aspect

Correlation with Type of School
(total research population)

I.Q.	0.157 ⁺
Logic in tests	0.021
Syntax in tests	0.438 ⁺⁺
Language in tests	0.189 ⁺⁺
Logic in composition	0.097
Syntax in composition	0.229 ⁺⁺
Language in composition	0.295 ⁺⁺
Methods of clarifying ideas	0.124 ⁺⁺

⁺ Significance of 0.05

⁺⁺ Significance of 0.01

We approached the principals and teachers of Grades 10 and 11 in the schools chosen and were well received with 35 schools finally selected for participation in the experiment. A draw was held to determine which schools in each category should take part as experimental classes and which as controls. The objectivity of the experiment was thus ensured by the random selection principle being followed both as regards the initial selection of schools and the fixing of the experimental and control classes respectively.

As with every experiment, there were drop-outs: some classes fell out during the year because of a change of teacher, others because they could not fulfil the conditions (i.e. they could not manage to adhere to the required weekly lesson period in written expression) and yet others because they

grew tired of the experiment. This latter cause particularly affected the control groups (for further details on this point see p 140). For our part, we too were forced to remove some classes as a result of deficiencies on their side in returning the tests and questionnaires (e.g. failures on the part of the pupils to write their names on their work).

The following table shows the number of classes listed as participating at the beginning of the experiment, the number which dropped out and the number which remained part of the project throughout the year.

Type of School	Experimental Classes			Control Classes		
	<u>Beginning</u>	<u>Left</u>	<u>End</u>	<u>Beginning</u>	<u>Left</u>	<u>End</u>
A (good standard)	8	1	7	8	4	4
B (average standard)	9	2	7	8	5	3
C (Kibbutzim)	4	0	4	6	1	5
D (Army course)	1	0	1	-	-	-
Total	22	3	19	22	10	12

The Sample

For the purpose of calculating the results a representative random sample was taken (25 per cent) from these classes in accordance with tables for the choice of random samples. Thus our research is based on a population of 336 pupils according to the following distribution:

Type of School	Experimental Classes		Control Classes	
	Grade 10	Grade 11	Grade 10	Grade 11
Category A	56	19	33	7
Category B	40	7	15	11
Category C	6	18	7	11
Category D ¹		(22)	-	-
Total	102	44 (+22)	55	29

There was some fear that drop-outs, and especially from the control classes, would spoil the objectivity of the picture since generally speaking it is the weaker classes which fell by the wayside, a factor which could alter the balance of equality created by the random selection principle.

An examination showed, however, that the drop-outs were of a non-selective nature and therefore the difference between the levels of the experimental and control classes was not significant, a point which permitted straight comparison between the two groups.

Checks show that the average achieved mark in Grade 10 in tests and composition at the beginning of the year was 6.5 in the experimental classes and 6.50 in the control groups. Marks in Grade 11 were 6.88 in the experimental groups and 6.97 in the controls. The slight differences in the initial levels of the parallel groups were, of course, taken into consideration when the information was being worked through in order to permit of a comparison of the relevant rates of progress.

1) This category was not taken into consideration in the calculations or comparisons.

The Teachers

Random selection of the teachers participating in the experiment was also assured by the random selection of the schools concerned and the random determination of which classes were to serve as controls or experimental groups. The questionnaires completed by the teachers gave further evidence of the balance achieved: answers showed that both groups - those teaching the experimental classes and those teaching the controls - were similar in character.

The average educational level of both groups was equal: both included graduates of teachers' colleges, those who graduated university with a B.A., some who had M.A.'s and some PhD's. The majority had no formal training in the field of linguistics or grammar. The teachers were representative of the secondary school teaching population of Israel as regards length of service and experience, too, and in both groups there were those who were comparatively new to teaching and those who had several years experience. Teachers of the control groups had an advantage as regards their average length of service. But this did not seem to us to invalidate the comparison of the two groups, the longer experience of the control group teachers should have been of help to them in carrying on with their normal patterns of teaching and presenting these as well as possible; while the shorter experience of the experimental group teachers was balanced out by our requirement that they teach in accordance with the system we had planned for them. One must further take into consideration the fact that the overall picture of the teachers' educational level and length of experience may

somewhat blurred since there were some teachers who did not complete the questionnaire.

TEACHERS' EDUCATIONAL LEVEL

		Number of Teachers in Experimental Classes	Number of Teachers in Control Classes
Education	Teachers' Training	2	3
	College		
	B.A.	5	3
	M.A.	3	4
	Ph.D	1	2
Number of years of teaching elementary school	0	7	3
	1-3	2	2
	4-5	-	4
	6-8	1	3
	9-10	1	-
Number of years of teaching high school	1-3	1	3
	4-5	5	1
	6-8	2	3
	9-10	2	2
	17-18	1	1
	25	-	1

B) Gathering the Data

What was the data on which the research was based? What information was elicited from the experimental classes and the control groups, how was it checked and worked through and how were conclusions eventually drawn?

1) The Information

The research was based on information collected in the following ways:

- a) Writing down of remarks made by teachers during study days and visits to the schools, summaries of observation visits made by

the co-ordinators of both the experimental and control groups to lessons given by a number of different teachers;

b) Teachers' assessments of their pupils' compositions throughout the year;

c) Questionnaires filled in both by teachers and pupils;

d) Test papers written by pupils;

e) Pupils' compositions.

(In order to achieve accuracy in comparisons, we set both groups identical tests and composition subjects both at the beginning and the end of the experimental year.

The major points of information serving as a basis for our research findings were those gathered in the three last mentioned ways which were the most objective; information reaching us via the first two ways served both to round out the picture and as a basis for future improvements (see section: "The Results of the Experiment").

1) Study Days and Visits to Classes

See the details cited in the sections relating to the control groups and the experimental classes, p. 127, 200, 210.

2) Questionnaires¹

i) Questionnaires Addressed to Teachers

The questionnaires addressed to the teachers asked them to fill in certain personal details (educational standard, length

1) Details of the questionnaires can be found in the appendix to this report, p. 320-326

of experience) which helped us ensure that the sample we had selected did in fact reflect the variety of the overall Hebrew teacher population.

Teachers in the experimental groups listed on their questionnaires comments relating to the sections of the workbook which they had managed to teach in the course of the year: their impressions of the pupils' progress, pupils' attitudes to the subject as these might have changed by the end of the year, and further comments relating to the proposed method and to individual exercises in the workbook.

Teachers in the control classes were asked to answer a number of questions, including the following: what time was devoted to teaching the different aspects of language instruction, what methods were used in teaching, what books were consulted, what impression did the teachers have of the attitude of their pupils, what other comments would they make on the realities and the desired improvements with regard to the teaching of written expression?

ii) Questionnaires Addressed to Pupils

Pupils were asked to fill in their age, sex, country of origin, the language in which they preferred to read, and details of their prior study of composition writing and syntax. They were also asked to list in order of preference, the different subjects dealt with in their Hebrew lessons and the types of composition subjects they preferred

(they were given six subjects, in no special order and without any explanation, these they were asked to list in the order in which they would prefer them to be set as compositions. The subjects were of an emotional, philosophic or factual nature, thus, after we had checked their answers, we were able to obtain some idea of what "type of writer" each pupil was).

3) The Tests

Pupils were given a series of tests¹ intended to check the following points:

a) I.Q. Tests

These tests were, of course, only given once (at the beginning of the year). We did not use the full set of I.Q. tests, but contented ourselves with a vocabulary test, a comprehension test and a multiple choice test in which pupils were to choose the correct one of four examples applicable to a series of given sayings. These tests have a considerable degree of correspondence with the full I.Q. test set, and we thus thought it possible to use them in indicating I.Q.'s. But, nevertheless, one must approach those sections of the tables showing I.Q. levels with the requisite degree of caution.

Since the vocabulary test and the saying-and-example test check both linguistics and logic, two aspects which we examined

1) In the Hebrew version of the report the tests were cited in the Appendix. Since they were largely concerned with minute linguistic differentiations, they have not been translated.

separately, we added these marks to the overall picture emerging in respect of these two areas when we came to check progress in them.

b) Tests of Logic

i) Classification

Pupils were asked to check through a list of details and then fill in on a prepared diagram what they considered had been omitted in the diagram.

ii) Definitions

Pupils were asked to underline the one correct definition, in a number of given suggestions, for a list of words.

iii) Tautology

Pupils were given a passage from a lecture in which various sentence fragments had been marked and numbered. They were asked to write down the numbers of those sentence fragments which repeated information given previously.

iv) Endings

They were asked to select the logical ending (of four possibilities) for a given passage (a test of recognizing syllogisms, etc.)

v) These tests also included a test in logic abstracted from the complete set of I.Q. tests and the test in which pupils were given a saying and then asked to choose one of four correct

examples of the way in which the saying is illustrated.

c) Tests of Formal Syntax Knowledge

What is a sentence? Pupils were given a number of speech fragments and were asked to indicate those that were formally sentences and those that were not.

Types of sentence: Pupils were asked to identify the various types of sentence (simple, compound and complex).

Parts of a sentence: Pupils were asked to indicate the various parts of a sentence (subject, object, etc.).

Punctuation: Pupils were asked to choose one of four possibilities for the correct punctuation of given sentences.

Conjunctions, prepositions, etc.: Pupils were asked to choose the correct conjunctions, prepositions, etc. for a number of given sentences.

d) Tests of Linguistic and Stylistic Knowledge

i) Precision in the Use of Words

Pupils were asked to complete the blanks in sentences by choosing the most suitable word from a given list.

ii) Confusions of Style: Pupils were asked to identify confusions of style (e.g. Biblical style mixed with slang) in a number of marked out instances in a given passage.

iii) Expressions and Idioms: Pupils were required to check the meaning of a proverb or an idiom from a list of possibilities.

iv) This set of tests also included the vocabulary test which is part of the I.Q. test. Here pupils were asked to choose from among a number of suggestions, the correct meanings of given words.

Other tests were also given at the outset of the year, but they were passed up and not taken into further consideration: tests in morphology and differentiation between adverbs (syntax) were also set. In both of these, the whole test population achieved such good results that we decided not to test these subjects again at the end of the year (see p. 252 at the section of the report devoted to conclusions).

Tests designed to check the pupils' ability to distinguish between subjective and objective writing were also administered at the beginning of the year, but they were not found to be sufficiently differentiated and were thus excluded from our calculations.

4) Compositions

All pupils wrote a composition on the same subject, one at the beginning of the project and one at the end. The chosen subjects were of a functional type since it was at this type of writing that the experiment was directed. Both subjects were taken from a list of those previously tried out by the research department of the School of Education in the Hebrew University and already proven as test

subjects, thus serving as reliable measuring standards for our purposes.

At the outset of the experiment the subject was "Explain to what extent the saying 'It is good that we do not know what the morrow may bring' is true, and to what extent it is false."

At the end of the experiment, pupils were asked to write on "Man's concern for his own well-being is preferable to his concern for the well being of society - is this true?"

In analyzing the compositions, no evaluation was made of the content of the compositions, for this was not the point of the experiment. Similarly, neither the writer's standpoint in relation to the subject, nor his personal inclinations and taste assumed any weight.

Different subjects were chosen for the initial and final composition tests since we wanted to avoid any chance of increased success in the second being due to the fact that pupils might remember the subject and have discussed it in class during the year. Yet, at the same time, we were careful to ensure that both subjects were of a similar character, form and level of difficulty. Pupils were asked to write ten lines arguing the case for the proposition, and a further ten lines arguing against it. In asking examinees to follow this procedure in respect to these subjects we were able to check their manner of thinking, the way in which they used proofs and arguments, the methods of drawing conclusions and their capacity for logical structuring. The short length of the compositions was suited to their relatively limited field and also fulfilled more than the minimum needed for checking linguistic attainment - i.e. 100 words.¹

1) Chotlos, J.W.: "A Statistical and Comparative Analysis of Individual Written Language Samples", Psychological Monographs Vol. 55, No. 3, 1944, pp. 79-80.

How Were the Sample Pupils' Achievements Registered in the Tests and Compositions Evaluated for Our Research Purposes?

All tests given to the pupils were of the "closed" variety and achievements were calculated in points (the base was calculated according to the formula appropriate to the structure of each individual test. Thus, for example, in tests where the possibility of guess work played a significant part, points were allowed in accordance with a formula which took this possibility into account).

The number of points scored by each pupil in each test was then converted into "teacher's marks" i.e. into the scale of marking commonly accepted in our schools; from 4 to 10.

This conversion was carried out in accordance with a table which compares the spread of "teachers' marks" with the marks achieved by pupils in the selection-for-secondary school test (a test administered to all Grade 8 pupils) in the school year 1960/61).¹ Both mark spreads were fairly similar and permitted the construction of a scale suitable for converting all test marks into "teacher's marks". (For further information, see appendix, page 331, for the table of marks' spread and comparisons).

Compositions, too, were evaluated according to teacher's marks, with this unified evaluation enabling us to calculate the various comparisons.

1) Dr. Gina Ortar: "The Selection Examination for Grade Eight Pupils," 1951/52, "Hinuch VeTarbut", 9 (33), Jerusalem, 1953/54.

Various examiners evaluated the compositions according to the following criteria giving each a separate mark:

Logic

- 1) Relevancy of ideas expressed in the composition to the subject set.
- 2) Logical word arrangement in sentences.
- 3) Logical sentence arrangement within each paragraph.
- 4) Logical arrangement of paragraphs within the overall composition.
- 5) Connection between sentences.
- 6) Connection between paragraphs.
- 7) Clarification of logical relationships (e.g. clarification of the relationship between proof and conclusion).

Syntax

- 1) Writing in complete sentences.¹
- 2) Grammatical agreement of sentences.
- 3) Sentence structure (length and complexity).
- 4) Punctuation.

Language

- 1) Use of prepositions and conjunctions.
- 2) Precision in word usage.
- 3) Different levels of language (correct usage of different language levels, the extent to which these have been integrated into a flowing style).
- 4) Correct use of various forms of noun and verb (morphology).

1) See Ortat, G. "The Grade 8 Selection Test 1960/61 in "Hinuch Ve Tarbut 9" (33), Jerusalem, 1964 (Hebrew)

Ways of Clarifying Ideas

- 1) Expanding and explaining ideas.
- 2) Use of examples as a means to clarification of ideas.
- 3) The level of abstraction and generalization used and the extent to which these means were of assistance in clarifying ideas.¹

In order to preserve objectivity, the examiners were kept ignorant of the names of the pupils whose work they were checking and also of the group to which they belonged, i.e., experimental or control. We also insisted that compositions be checked by more than one examiner, thus avoiding any possibility that personal tastes might influence the judging of the work (even though only the relationship of the achievements was important in measuring progress).

Thus three examiners, all of them experienced in teaching composition and in marking work of this nature, checked the written work. There arose too, the problem of the reliability of checking, since disagreements between the assessors were likely to increase with their numbers. In order to overcome this difficulty, the examiners worked in accordance with criteria which were as objective as possible and which all three previously had accepted. Before they began work, all three separately analyzed one same composition. After comparing their results, they discussed and settled the various points

- 1) While these criteria can also serve as a guide to teachers in the evaluation of compositions, they are still no more than a guideline of some points to which one should pay attention. They do not constitute a key to composition evaluation as one should not give equal weight to each of the points enumerated in arriving at a final assessment. It is also doubtful that there is a need for such a detailed analysis in giving a composition mark.

at issue in their evaluations. After they had all worked separately for one month, we carried out a check on the reliability of the marking: all examiners check the same seventy compositions, following this, we calculated the correlation between the different sample assessments.

Correlations were extremely high: between examiner A and examiner B to a level of 0.865, between examiner A and examiner C to a level of 0.842.¹

In order to achieve an even greater reliability of marking, the examiners jointly rechecked those compositions where the discrepancy in their assessments had been the greatest, and finally arrived at a unified decision.

The marks given to each pupil were many and detailed, a total of 31. In the various tests and in the detailed marking of compositions, calculations based on such detailed criteria were not possessed of a character which made them reliable statistically and the detailed marks were accordingly unified, in accordance with the major categories, into seven aspects: logic, syntax and language in tests, and logic, syntax, language and idea clarification in composition.

The mark given for each aspect was the average of the marks achieved in each component of which the aspect was composed (for details on tests see p. 225 and p. 226).

1) On the system used for checking the reliability of the marks see Guilford, J.P. "Fundamental Statistics and Education," 3rd. edition, McGraw Hill Book Co., Inc. N.Y., 1956, p. 378.

Working Through the Information

Thus the information in our possession was composed of the marks each pupil received in the various aspects of tests and compositions as described above, answers to pupil questionnaires (see p.222), personal information on each pupil, information as to the type of school attended and the group (experimental or control) to which each belonged.

The information was worked through with the help of a computer, with a separate card being punched for each pupil. The cards served as a basis for the following calculations:

- 1) The average mark attained in the various aspects described above as regards the different groups and sub-groups (in control or experimental classes) in the various types of school included, in Grade 10 and Grade 11, and in both the initial check and that carried out at the end of the year. The marks were calculated for both tests and compositions. (For methods of converting the test marks into "Teacher's marks" see p 331, appendix).
 - 2) The difference (and its significance) between achievements registered in these two examinations as regards the various groups (i.e. the extent of progress in the various groups).
 - 3) The correlations¹ between the achievements registered in the various aspects mentioned above in the two different examinations.
 - 4) The correlations between the achievements in the various aspects and such personal data as sex, age, country of birth, language, previous study of syntax and composition and the personal inclinations
-
- 1) Correlations were worked out according to the Pearson Formula.

and tastes of each pupil (both as regards the type of subject about which the pupil preferred to write and the preferred aspects of Hebrew lessons as taught in school).

5) Various numerical details, (e.g. the number of pupils using example as a means to clarify thought in compositions written at the end of the experiment as compared with the number using it in the initial composition, etc.)

RESULTS AND CONCLUSIONS TO BE DRAWN

What were the findings received from a working through of the information?

1) We shall begin by making a general survey of the progress achieved in the experimental and control classes, adducing the findings relevant to such progress as this was assessed by the teachers, as it was demonstrated in the tests and as it emerged from an analysis of compositions written by the pupils themselves.

Having detailed those findings, which point to progress in various aspects, we shall proceed to an analysis of these results and attempt to draw conclusions from them both as regards research and practical teaching needs.

2) From findings relating to progress in the various aspects, we shall proceed to an examination of those findings which relate to the connection between the various aspects of written expression, checking on the nature of the various connections, and ascertaining what differences have come about in these various correlations as a result of the experiment.

3) Finally, we shall move on to a consideration of a number of other factors connected with the teaching of written expression. We shall examine factors which must be taken into consideration when considering systems of teaching ; for which classes, type of school and level of pupil is the system best suited. Following this, we shall consider

a number of more general factors concerned with the teaching of written expression: the sex of the pupil, his country of origin, the language generally used by the pupil, prior study of written expression and syntax, the pupil's personal taste as regards the various subjects comprising Hebrew studies and the types of preferred composition subject. In the course of this discussion, we shall put forward the findings of the various checks we ran to ascertain correlations between these factors and the subject of written expression, analyze the results and present our conclusions.

PROGRESS REGISTERED BY PUPILS OF EXPERIMENTAL AND CONTROL CLASSES

A. GENERAL PICTURE

1) Impressions

The general picture which emerges seems to point to the fact that pupils taught along the lines we proposed (i.e. the experimental classes) made more progress than those taught along lines generally accepted in Israel (i.e. the control groups).

We received the first hint of this as soon as we began to look at the questionnaires, tests and compositions. At the beginning of the experiment we had noticed that some pupils were incapable of writing more than a line or two, and that some crossed out their names after trying to write. Yet by the end of the year there was a great difference in this respect between the experimental group and the controls: while many pupils

from the latter group crossed out their names or failed to write the composition (returning to us the completed questionnaire and test papers, but leaving the composition sheet blank)¹ there were no such occurrences among the experimental group.

The control group still provided examples of pupils who were only able to write one or two lines and then failed to continue, while many compositions from this group were spread over only a very few lines, composed of fragmented and dispersed ideas, and poorly arranged.

Compositions from the experimental classes were longer than both those of the control group and those which the same experimental class pupils had written at the outset of the year's program. At the end of the year, most of them managed to fill the allotted sheet, while their work was more externally crystallized and properly arranged in paragraphs.

2) Results of Information Given by Teachers

A picture which to some extent also indicates that the experimental group had progressed better than the control, emerges from the information passed on to us by the teachers who had been working with the various classes. They were asked to send us the marks they had given for six compositions set as tests during the year. Unfortunately, only nine teachers complied with this request (five from the experimental classes and four from the controls), and thus we do not have a complete and representative picture.

1) These, of course, were all removed from the sample, thus raising the level of the control groups as it finally appeared in the calculations.

Research-wise, it is also not possible to rely on these marks, since there is a great deal of difference in the subjective assessments of the teachers.

Yet, despite these various reservations, there is some value in the general view of progress which emerges from the teachers' reports when it is taken in conjunction with all the other information. Its value lies in the fact that the teachers' assessments do not run counter to those made by our own examiners. Further, their assessments, too, point to a greater degree of progress among the experimental classes; and in so far as the direction of the results is identical among both types of assessors, we have further corroboration for our findings.

The following table shows, in summary, the teachers' findings.

Group	Average Mark for First Composition	Average Mark in Sept.-Dec. Term	Average Mark in Jan-April Term	Average Mark in May-June Term	Average Mark in Last Composition
Experimental	6.4	6.4	6.6	7	7
Control	6.1	5.9	6.0	6.4	6.4

While even these vague results are worth consideration, in arriving at our own conclusions we have relied only on a comparison of the progress achieved as measured after an analysis of achievements. An analysis of the tests and the compositions and a comparison of the achievements registered at the beginning of the year and at the end of the experiment shows that those in the experimental class had made better progress than the control pupils.

This preference appears consistently and to quite some considerable

extent throughout all the various calculations.

3) The Results as They Appear in the Measurement of Achievements in

The Various Tests

The general rule is that the role of the I.Q. factor plays so great a part in tests that the general impression emerging is that achievement depends primarily on the testee's intelligence level. In other words, if we generally speaking use tests to measure the progress registered by two groups, then both groups will progress to more or less an equal extent, since the intelligence level in each group cannot be assumed to have changed. When there are differences of achievements in the tests, these are to be ascribed to the results of drill in that test, or in others of a similar nature (many research projects are concerned with such drills and in these instances achievements are measured primarily with the help of tests).

A further consideration is that of test sophistication: the testee achieves better results at a later test as a result of having learned how to answer this test and how to approach tests in general.

Taking these points into consideration, the value of tests lies in that, generally speaking, they can be used as a measuring stick for determining the initial equality of level of an experimental group and a control group and, further, as a measure for achievements examined in other ways.

Thus, in the case of our research project, there were grounds to expect that there would be no significant difference between the achievements of

the experimental group and those registered by the control group, as far as the tests were concerned.¹

The results bore out the premise: there was in fact no significant difference between the experimental and control groups as regards the tests. There was a difference in the achievements as registered by the pupils at the beginning of the year and at the end of the project, but these differences were not, in the overwhelming majority of cases, of a significant nature, and preference went sometimes in favor of the experimental group and at other times in favor of the controls, at a rate of about fifty-fifty, in other words, at random. Changes such as these are to be credited to a year of general education as regards both groups and the acquisition of experience in test writing. What is the difference (in fractions of marks) between the two groups, as their achievements were measured in tests?

See table on next page.

1) Had there been any real differences in the achievements recorded in the tests, they would have signified that we had somehow contrived to raise pupils' I.Q. levels, something which is in itself impossible, and there would, too, have been room for suspicion that some pupils had spent the major part of the experimental period in direct practising of tests of the kind in which they were to be examined at the end of the year.

Progress as Recorded in Tests

Aspect	Preference	Good Academic Secondary Schools		Average Academic Secondary Schools		Kibbutz Secondary Schools	
		Grade 10	Grade 11	Grade 10	Grade 11	Grade 10	Grade 11
Logic	Exper. Control	— xx 0.675	(0.263) no exam.	— 0.35	— 0.324	0.405 —	0.227 —
Syntax	Exper. Control	— 0.229	(0.210) no exam.	xx 0.555 —	1.471 —	0.548 —	— 0.414
Lan- guage	Exper. Control	— 0.379	(0.526) no exam.	— 0.025	— 0.272	— 0.191	0.273 —

x 1 - to a significance of 0.5
xx 2 - to a significance of 0.01

The result, and

herein lies its value, serves to confirm that the initial background and I.Q. level were equal for both groups, and that no distortions resulting from any drilling during the year of the program were manifested here.

A further important value attaches to this result in that it serves as a measuring stick and an unchanging background for results provided by means of examination of the compositions written by pupils.

4) Results Provided by Measuring Achievements in Composition Writing

Results emerging from a comparison of the achievements reached by pupils in compositions written at the beginning of the year and those written at the end assume special sharpness when viewed against the background of achievements measured through testing.

Such a comparison points out that pupils in the experimental classes had progressed to a clearly significant extent more than had those in the

control group. We shall start by showing the general picture which points up the degree of progress achieved by the whole experimental group in regard to each aspect as compared with that achieved throughout the entire control group (our calculations are based on a standardized average of all classes in all schools, this was compared with a standardized average of all control classes). We have cited this progress, as it was measured in fractions of marks, according to the normally accepted pattern of marks in local schools, i.e. from 4-10.

We have further cited this progress as it can be translated into terminology borrowed from the field of I.Q. testing, and have named this: progress in terms of achievement quotient.¹

-
- 1) We suggest the term "achievement quotient" to parallel the term intelligence quotient. The meaning of the term is as follows: the average level of the class in question is fixed at 100, progress is expressed in marks whose weight is similar to the weight of marks assigned in I.Q. testing. We have no reliable evidence to prove that the average of the classes taking part in our research project represents the national average for Grades 10 and 11 as regards the aspects analysed; yet nevertheless, the extent of progress is unaffected by this, even if the average of our sample is in fact higher than the national average (about 103). The calculations are worked out according to a comparison of the teacher's mark spread for the I.Q. test in the Grade 8 examination cited above, when 1.4 teacher's mark equals one standard deviation.

PROGRESS IN WRITING OF COMPOSITION

The Aspect	The Group	Progress in Teachers' Marks	Progress in achievement quotient
Logic	Experiment	0.957	10 points
	Control	0.197	1 point
	Difference	0.850	
Syntax	Experiment	0.774	8 points
	Control	0.205	2 points
	Difference	0.569	
Language	Experiment	0.794	8 points
	Control	0.393	4 points
	Difference	0.401	
Methods of Clarifying Ideas	Experiment	0.671	7 points
	Control	0.250	3 points
	Difference	0.927	

The improvement of the experimental groups in all aspects is at a level of more than half a mark, a level which the controls failed to reach.

In the field of educational research, progress is regarded as satisfactory when marks already show an improvement of half a mark. This becomes especially significant when the "teacher's mark" is converted into the "achievement quotient" mark. In this particular case, the conversion shows an improvement, in respect of all the experimental classes, of 8 points of the scale.

The details of this general picture are also interesting: the detailed breakdown shows types of schools and separate results for Grades 10 and 11; it points to the level of progress in different aspects, achieved by each of the subdivisions both in the experimental and control groups, the difference in the level of improvement of each subdivision as compared between experimental and control groups, and the extent of significance in regard to the improvements and the inter-group differences.

Answers to these questions can be found in the following table.

A Detailed Comparison of Progress Registered in Experimental and Control Classes as Measured Through Composition Writing ¹

	Good Standard Schools		Average Standard Schools		Kibbutzim		Army Course
Aspect	10th Grade	11th Grade	10th Grade	11th Grade	10th Grade	11th Grade	Army Course
<u>Logic</u>							
Experiment	XXX +0.839	+0.368	XXX +0.800	+0.428	XXX +1.500	XXX +1.055	XXX +0.772
Control	*** +0.393	-0.286	+0.333	* -0.818	+0.285	0.000	
Difference	X 0.446	0.654	0.467	XXX 1.246	XX 1.215	X 1.055	
<u>Syntax</u>							
Experiment	XXX +0.803	X +0.316	XXX +0.975	XXX +1.000	X +0.833	+0.611	XXX +0.903
Control	+0.303	0.000	*** 0.866	* -1.182	+0.428	+0.363	
Difference	X 0.500	0.316	0.109	XXX 2.182	0.405	0.248	
<u>Language</u>							
Experiment	XXX +0.839	+0.053	XX +0.975	XX +0.857	X +1.333	XXX +0.833	XXX +1.000
Control	* +0.545	*** -0.143	*** +1.000	-0.454	*** +0.714	-0.090	
Difference	0.294	0.196	0.025	XX 1.311	0.619	X 0.923	
<u>Methods of clarifying ideas</u>							
Experiment	XXX +0.643	+0.368	XXX +0.550	+0.428	XXX +2.333	XXX +0.889	XXX +0.864
Control	-0.212	* -1.286	+0.133	-0.273	+0.714	-0.818	
Difference	XXX 0.855	XX 1.654	0.417	0.701	X 1.619	XXX 1.707	

*; X = significance of 0.05
 **; XX = significance of 0.02
 ***; XXX = significance of 0.01

+ = progress
 - = drop

1) Numbers in the tables indicate the difference between the initial composition mark and that achieved at the end of the year.

A general summary of this table indicates that all 24 experimental classes, in all sub-divisions, registered an improvement, with 16 of the 24 registering significant progress. On the other hand, improvement is only to be seen in 13 of the control classes (of which only 4 are significant), two groups have merely maintained the status quo, while 10 show a regression (four of them to a significant extent).

We must now see whether there is a difference between the progress registered in the experimental classes and that achieved in the control groups as regards the various sub-divisions, and if so, what extent it is significant.

Of decisive importance is the fact that all the differences are in favor of the experimental classes, an exception to this is the difference of 0.025 marks in language registered in Grades 10 of the "average" schools, but this difference, expressing itself in hundredths of a mark, is in fact nullified, while all other differences in favor of the experimental groups are expressed in tenths of a mark, or more. Of the 24 different sub-divisions, there were 13 which showed significant differences in favor of the experimental group, that is to say that the preference in favor of this group is also statistically significant (a significance of more than 0.005 according to the sign test).

While we have seen the improvement registered in the experimental classes as compared with the position in the controls, the difference between marks achieved initially and those given at the end of the year tells us nothing of the absolute marks achieved by each group at each

different examination. Thus, for instance, an improvement from a mark of 5.1 to a mark of 6.5 is not to be regarded as similar in weight to an improvement of marks from 8.0 to 9.5.)

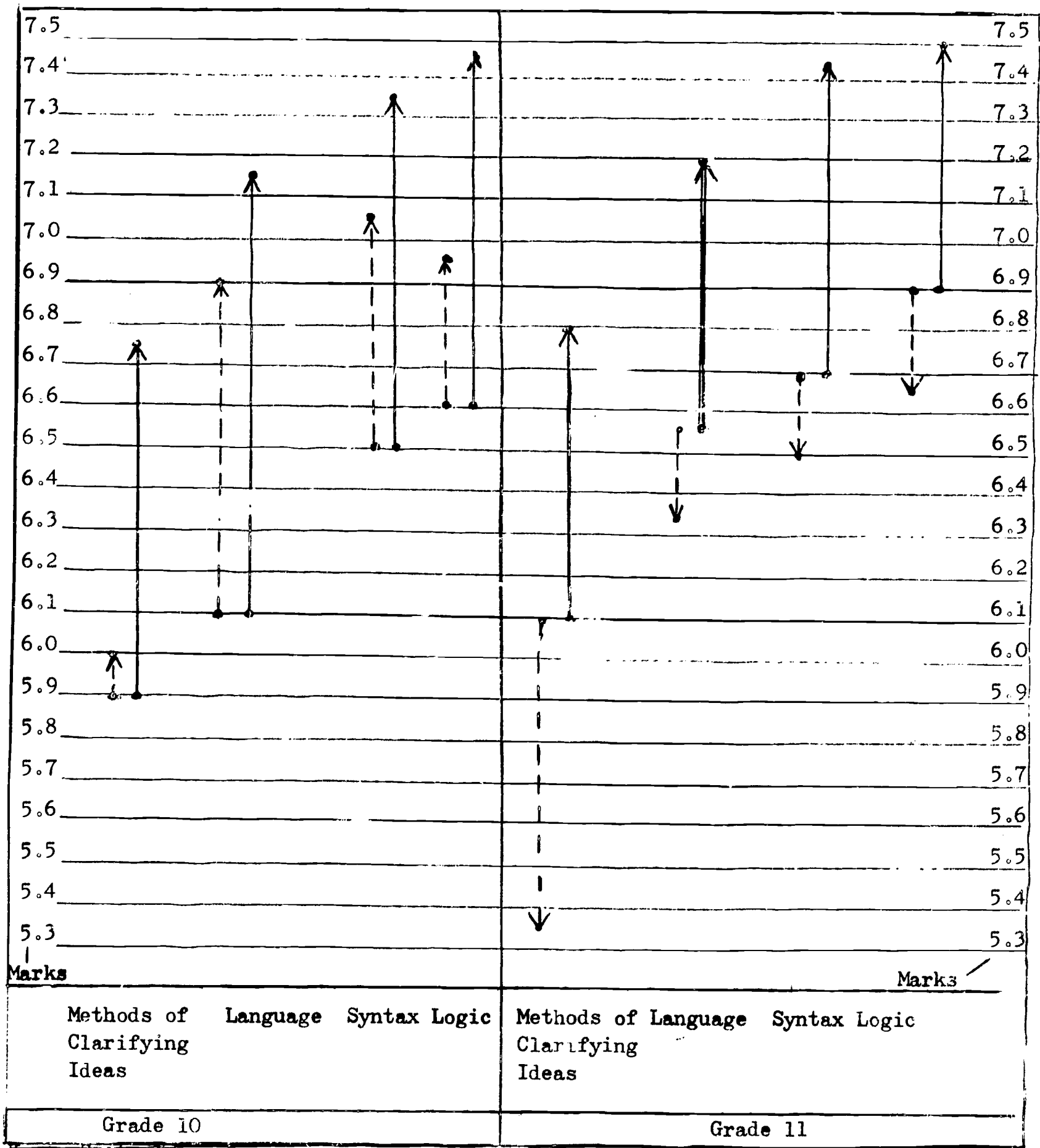
The following tables show the improvement registered by all classes in the experimental group as compared with all those in the control group, both as regards Grade 10 and Grade 11, according to their average achievements in both examinations.

TABLE OF PROGRESS - ABSOLUTE ACHIEVEMENTS

GRADE	ASPECT	INITIAL AVERAGE MARK	TERMINAL AVERAGE MARK	TERMINAL AVERAGE MARK
		(Both Groups)	(Control)	(Experimental)
10	Logic	6.6	6.95	7.45
	Syntax	6.55	7.05	7.35
	Language	6.1	6.9	7.15
	Methods of Clarifying Ideas	5.9	6.00	6.75
11	Logic	6.9	6.65	7.5
	Syntax	6.7	6.5	7.45
	Language	6.55	6.3	7.2
	Methods of Clarifying Ideas	6.15	5.35	6.8

Marks have been rounded to the nearest .00

PROGRESS OF EXPERIMENTAL AND CONTROL GROUPS ON
COMPOSITION WRITING



Key: Control groups: - - - - -
Experimental groups: ————

Progress measured in average marks (according to the scale of teachers' marks.)

8. DETAILED ANALYSIS OF THE RESULTS

An Analysis of Progress Registered in the Various Aspects of Written Expression

The first and most important conclusion to be drawn is that the proposed system as tried out in the experimental classes is effective as regards all the aspects of written expression checked in the course of the experiment. This is shown by the considerable degree of improvement registered by the pupils, both as this emerges from a comparison of their achievements with those of the control pupils, and from a comparison of the absolute achievements they themselves reached.

From the point of view of research, both these results are important, with the latter especially important from the point of view of actual practical teaching in schools. Even without comparing the experimental method of teaching with that normally accepted in our schools, it has been proved that this proposed method is able to advance pupils in all the various aspects concerned with the subject of written expression.

a) Language

In checking the language aspect in compositions, we divided the subject up into its various component parts: the use of prepositions and conjunctions, precision in the use of words, language levels.

(Morphology of nouns and verbs was left out of the general average in this subject, further details on this are to be found on p 252, in the section devoted to morphology.)

The mark for this aspect of written expression was thus arrived at by taking the average of all marks achieved in respect of each component.

The difference in the language improvement registered by the experimental classes as compared with the controls, was the smallest of all the aspects but even so, it was of quite considerable extent, with the experimental group progressing by 0.401 marks more than the controls, or, when the marks are converted into the achievement quotient, the former progressed by eight marks as compared with an advance of the controls.¹

Absolute achievements registered by the experimental classes were also of a considerable extent. Grade 10 improved from an initial average of 6.1 marks to a final grading of 7.15, while in Grade 11, the improvement was from an initial 6.55 to 7.2. Grade 10 control groups also showed improvement in this aspect, if not to such a striking extent as the experimental groups, raising their initial average mark from 6.1 to 6.9. But in Grade 11 of the control classes there was a slight regression, from 6.55, at the beginning of the year, to 6.3 at the end.²

It should be pointed out that most of the exercises in language were placed at the end of the workbook used by the experimental classes, and most classes did not manage to cover them. From this, one might therefore,

- 1) See the differences in achievement as expressed in the table showing "Progress in the Writing of Compositions" on p 242 and the table showing "A Detailed Comparison of the Progress Achieved in the Experimental and Control Groups", on p 243.
- 2) See the Table "Progress in Absolute Levels of Achievement", p 247.

conclude that even without special exercises in language, the very fact that pupils were continually engaged in writing and in a study of the problems of clarifying their thought and communicating clearly with their readers, from the point of view of language too, was, in itself, sufficient to bring about an improvement in the use and knowledge of language. In other words, such knowledge as they in any case possessed, perhaps even passively, was, as a consequence of their study program, made the more accessible for efficient usage.¹ The young writer thus sharpens his innate language sense; relates with more respect and responsibility to words he himself uses in writing and, as a consequence, his written work becomes more precise and more clear than hitherto.

1) The intention here is certainly not to suggest that such passive knowledge is, of itself, sufficiently rich, for there is always room to enrich our pupils' vocabularies. But, when the primary manifest aim is clear and precise writing, we can also achieve even more than this if we exploit to the full the pupil's innate passive knowledge (nor should one underestimate the extent of such knowledge among secondary school pupils of 16-17 years of age). Provided the basis is firm, we can then proceed to writing which is on a higher, richer and finer linguistic level.

Morphology of Verbs and Nouns

Achievements in regard to the morphology of verbs and nouns were excluded from our calculations of the average of all the various components in the language aspect. This decision was taken not because we do not consider this to be a branch of language, but because the achievements registered in the initial examinations were of such a high standard that there seemed no point in treating the subject further. (These very considerable achievements improved still more during the year, both in the experimental and control groups, despite the fact that no special treatment was given in this direction).

<u>Grade</u>	<u>Initial Exam.</u>	<u>End of Year</u>	<u>Difference</u>
10 (exper.)	7.95	8.61	0.66
(control)	7.99	8.63	0.64
11 (exper.)	7.96	8.54	0.58
(control)	8.12	8.81	0.69

The average mark achieved for passive knowledge of the correct forms of nouns and verbs in the initial examination was 9, and we did not repeat the test at the end of the year.

Similar results were also arrived at in a research project, testing this aspect of language among the pupils of the top grades of the primary schools.¹ Correct forms of nouns and verbs are usually quite familiar to all who speak in their mother tongue, a point which is

1) Dr. Gina Ortat, et.al. "Achievements in Language Teaching in the Elementary Schools", Haninuch Hayisodi, Ministry of Education and Culture, Jerusalem, August 1966.

confirmed by achievements in passive analysis of these forms and their correct usage in writing, even though the picture may be somewhat different as regards spoken usage. These results pose a necessity for some re-examination of the present position as regards the teaching of this subject, and its possibly exaggerated place in the curriculum. The whole issue is dealt with year after year in many precious teaching periods, throughout all twelve years of schooling. Perhaps some of this time, and certainly some of those teaching periods allotted to it in secondary schools, could better be used by attending to other, more important issues.

Syntax

As we have already pointed out, the teaching of syntax in the experimental classes strongly stressed the functional side, and was accompanied by only minimal instruction in formal syntax. Despite the difficulties we faced in adapting existing syntax text books for the purposes of written expression, nevertheless, pupils in the experimental classes benefitted considerably. In checking the compositions we examined each sentence for the presence within it of all mandatory elements, their grammatical agreement, the structure of the sentence, its length and its complexity¹ which all form the components of which syntax may be said to be composed. We discovered that experimental class pupils had improved their marks for the syntactical structure of their writing by

1) Punctuation was not included in the calculations of the average mark for this aspect, for further details see p 255.

0.774. On the other hand, pupils in the control classes had only improved their marks by 0.205. These classes had dealt separately with formal syntax and with exercises in which pupils corrected syntactical mistakes, but this was not effected in any systematic or integrated manner.

The difference in the improvement registered by the two groups of classes is, therefore, 0.569 marks, or, converted into the "achievement quotient", 8 marks for the experimental class, as against 2 for the controls.¹

In terms of absolute achievements, average marks in the experimental classes were higher than 7 (7.35 in Grade 10 and 7.45 in Grade 11); in the control groups, Grade 10 scored an average of 7.05, Grade 11 an average of 6.5. The initial average mark of the whole pupil population was 6.55 in Grade 10 and 6.7 in Grade 11. This mark does not include punctuation, for which the average was 5.88.

The preference in marks gained by the experimental classes must therefore be credited to the value they derived from the study program, whose major principle was that of integrating syntax and written expression; and we can do no more than hope that the clarification of the syntax for our modern language will advance us yet further.

It is interesting to note too, that the experimental classes did not suffer as regards knowledge of formal syntax. In tests checking this aspect, the experimental groups also achieved a somewhat more favorable

1) See Table on page 242.

position: in the average secondary schools, the differences between progress achieved by experimental classes, both Grade 10 and 11, and that achieved by control groups was significantly in favor of the former; in kibbutz schools, the difference was in favor of Grade 10 experimental; while the control groups had the advantage in only two cases: in Grade 10 of the "good" schools, and in Grade 11 of the kibbutz schools, and even so, this advantage was not statistically significant. (see Table "Progress as Recorded in Tests", section dealing with Results, p 240).

Punctuation

Initial achievements in punctuation were very poor, 5.88, and this despite the fact that punctuation is given a great deal of attention in schools, but apparently without any real success.

We were faced with the question of whether or not to include the mark for punctuation within the component marks which went to make up the average mark in syntax. There is no doubt but that it does form a part of the syntactical aspect, but from the point of view of research we had to see first of all if there was a really close connection (a correlation of more than 0.55) between punctuation and the other components of syntax. Only if such a connection with all the other components were shown to exist, could we permit ourselves to include it in this aspect. Results of the first stage of the experiment had already shown that the connection in the control group

(which represented the normally existing state of affairs) was less than 0.55 (in Grades 9, the correlation was 0.4, while in Grades 11 it was 0.5). It is possible that the reason for this low correlation is to be found in the fact that schools usually teach sentence punctuation only, with the isolated sentence forming the basic syntactical unit, rather than punctuation of the paragraph as a whole, where the development of an idea serves as the basic syntactical unit (inter-sentence syntax).

Thus, in the second stage of the experiment we decided to calculate the achievements recorded in punctuation as a separate entity, and not to include them among the components of syntax proper.

Calculations of the results gave us the following picture:

Class	Initial Average	Final Average	Difference Between tests	Difference between Experiment and control
10 Experimental	5.81	6.82	1.01	0.37
10 Control	5.95	6.59	0.64	
11 Experimental	6.18	6.91	0.73	0.36
11 Control	5.60	5.97	0.37	

The table shows that the achievements registered in the experimental classes were better than those of the control groups. Yet the workbook used by the former group did not include a special section on punctuation, nor did we treat it within the framework of sentence syntax. Concern with punctuation was always included within the framework of a complete unit of written expression - a paragraph or a composition-and pupils' attention

was always directed to checking both the syntactical structure and the punctuation of what they had written. The starting point was always the idea which the writer wanted to convey and its clarification to his reader. It seems to us, therefore, that the direction in which the results point is this: there is little point in teaching punctuation within the isolated context of instruction in the formal rules of punctuation or in its treatment within the framework of the individual sentence (and we say "direction" only, since within this framework we did not go thoroughly into the whole subject of the treatment of punctuation. The smallest punctuation unit should be not the sentence, but the complete idea as it is expressed within the paragraph. Concern for both punctuation and syntax should be rather on an inter-sentence level, starting with the point always being the writer's own desire to express and develop a complete idea. It is in the light of this idea that the writer must decide where the natural thought pauses occur, using these to build a correct syntactical structure with its appropriate punctuation.

This direction is confirmed also by the calculations of the correlation made at the end of the first stage of the experiment. During this first year, when the experimental classes were concerned only with the logical structure of the composition and completely by-passed all considerations of language in general and punctuation in particular, the correlation between punctuation and the other component aspects as measured in these classes was extremely high: 0.86 in Grade 9, and 0.88 in Grade 11.

c) Logic

The program's treatment of logic resulted in the experimental group's advancing to a far greater extent than did the control group: the difference in marks being 0.850.¹ Achievements in this aspect were measured by taking an average of the following components: relevancy, logical arrangement of words within the sentence, arrangement of sentences within the paragraph, arrangement of paragraphs, logical connections between the sentences, links between paragraphs and clarifying of logical relationships.

Both experimental and control class teachers dealt, during the year, with the logical issues of written expression. But in the control groups, such teaching was primarily confined to instruction in the writing of paragraph headings for compositions,² and to isolated exercises concerned with the syntax of the sentence when looked at from the point of view of logic (and not treating of inter-sentence syntax). In the experimental groups, on the other hand, the whole issue was taught in a comprehensive, continuous and consistent manner since the major principle underlying the year's work was one of developing logic and clarity in thought and expression.

Pupils in the control classes advanced by an average of 0.107 marks, while those in the experimental classes made the greatest step forward in this aspect, advancing by 0.957 marks (i.e. the general average of the

1) See table page

2) On this point, see p , which discusses the general pattern of local teaching in regard to stages of writing as this compares with our system of teaching working stages.

of the entire experimental group population moved forward by nearly a whole mark!) Expressed in terms of the "achievement quotient", the experimental classes moved forward by 10 points as against 1 in the control group. (Reference should also be made to the Table on p 242 which shows in detail the extent of the improvement registered in each of the various sub-divisions of the experimental classes.)

The initial level of achievement in this aspect for the entire research population (experimental and control alike) was higher than that shown for any other aspect of written expression:¹ a mark of 6.6 in Grade 10 and 6.9 in Grade 11. It is against this background that one must view the absolute standards achieved by each group: Grade 10 controls scored 6.95, while the experimentals scored 7.45, Grade 11 controls scored 6.65, while the experimentals reached a mark of 7.5.

d) Ways of Clarifying Ideas

It was in teaching methods for clarifying thought that the research system scored the greatest triumph when measured by a comparison of the rate of advance of the experimental group as against the controls. This aspect was composed of the following components: expansion and explanation, exemplification, abstraction and generalization. These methods were selected as being the most important of all the various means of clarifying ideas. In addition to this, we also considered that they were nevertheless the most widely used, whether or not they were specially studied.

The difference between the progress of the two groups was 0.921

1) Even so, it was not very high and did not reach the average level recorded in composition work for Grade 8: an average mark of 7. See page 247.

marks,¹ while in terms of "achievement quotient", the experimental group advanced by 7 points as compared with the control group's drop of 3 points.

The study of this aspect constitutes one of the major changes in the research system as compared with the generally accepted teaching pattern. Thus, both the subject matter dealt with and the methods of teaching, as both these were put forward in the new system, may be counted among the principal factors contributing to the advance made by the experimental group.

An initial mark registered in this aspect by the total research population (controls and experimentals alike) was the lowest: 5.9 as an average in Grade 10, and 6.15 in Grade 11. This level was even lower than the generally low average mark for composition (see Table "Advances in Absolute Achievements", p 247), and therefore the achievement recorded by the experimental classes can be seen as satisfactory: an average of 6.75 in Grade 10 and of 6.8 in Grade 11 (the jump here was thus 0.85 marks in Grade 10 and 0.65 in Grade 11).

It is interesting to note that this is the only aspect in which the control group made no advance, while the overall average of pupils in this group even dropped back by 0.25 marks. A complete failure to treat this issue is likely to result in its continuing deterioration and it therefore behoves us to pay attention to the teaching of this important, but neglected, school subject.

- 1) See the differences in marks as recorded in the Table "Progress in Composition Writing", on p 242, and the detailed Table on p 244. Both tables show the great differences that emerged and the extent to which these were significant as compared with other aspects tested.

In checking the level of success attained in the teaching of methods for clarifying ideas, we posed more detailed questions which sprang from the very character of the treatment we had given:

- 1) Was there any increase in the number of pupils using these methods, and if so, greater in the experimental classes than in the control groups.
- 2) Have the pupils learned to use these methods properly? Have the experimental class' achievements in this aspect been better than those of the controls?

A full general answer to this latter question has already emerged from what we have written above, but in order to re-check these questions, and in particular, the first of them, we chose to make further calculations, this time selecting only one of the suggested methods of clarifying ideas as representative of all those we had proposed.

The selected method was that of explaining ideas by exemplification, which we felt was one which the pupil could easily choose either to use or to ignore. We felt he was freer to accept or reject this method than was the case in regard to the methods of explanation and expansion or abstraction and generalization. This being so, it would be easier for us to check whether the number of pupils using the method had risen as a result of their study of it. Then too, this method had been dealt with either at the beginning of the course or half way through it, but not at the end of the year. Thus in choosing it in preference to the others, we ruled out the possibility that pupils might score highly here because they were using something which remained freshly in their memories from recent teaching,

A further reason for our choice lay in the fact that this method is one of the most widely accepted and well-known even to those who have enjoyed no specially directed teaching. Thus, the pupils in the control classes, too, would be given a fair chance. In this way we were able to see whether, after a year's teaching in methods of clarifying ideas, our pupils were now able to use them and to use them efficiently in actual composition writing.

Of course, even before we taught the use of exemplification as a method for clarifying ideas, there were pupils who did make use of this method and others who did not. We therefore checked the initial composition for use of this method and discovered that the number who did use it was similar to the number who did not (about 50 percent)¹; in other words, use of the method (without special directives) was quite random.

- 1) This position was equally encountered in Grades 10 and 11, in experimental classes and controls. The small differences in the numbers were of no statistical significance, in other words the initial situation was similar in both groups and this enabled us to arrive at valid conclusions following the year's experiment.

Number of Pupils Using Exemplification Prior to the Experiment				
Grade	Experimental Classes		Control Classes	
	Using Exemp- lification	Not Using Exemplification	Using Exemp- lification	Not Using Exemplifi- cation
10	63	39	31	24
11	20	24	14	15

At the end of the year, we again checked the compositions of those who had not initially made use of this method. This examination showed that while there were some pupils in both types of classes who were now making use of exemplification, the numbers of "new users" in the experimental classes was far higher than in the control groups.

The Changing Use of Exemplification in Compositions

(The beginning of the year figures relate to those who did not use examples, the end of the year to those of them who did now use them.)

Class	Experimental Classes		Control Classes	
	Beginning	End of Year	Beginning	End of Year
Grade 10	39	21 ¹	27	7
Grade 11	24	9	—	—
Army Course	6	10	15	3

¹The percentage rise in the number now using this method in Grade 10 is the only one which is significant: to a level of 5%, according to the χ^2 formula.

But it is not sufficient simply to point to the fact that pupils are now using this newly studied method. The question still remains: are they using the method properly? The following table shows that of those same pupils mentioned in the previous table, those in the experimental classes (i.e. those who had really studied the correct use of examples) used the method better than those in the control classes who had not learned what constituted a good example in clarifying ideas.

	Experimental		Control	
	End of Year	Initial Mark (among those who made spontaneous use of exemplification)	End of Year	Initial Mark (among those who made spontaneous use of exemplification)
Average mark for exemplification in Grade 10	7.8	7.1	7.1	6.8
Average mark for exemplification in Grade 11	8.0	7.0	6.7	7
Average mark for exemplification in Army Course	7.2	6.2		

(for the sake of comparison we have also cited the average marks of those who made spontaneous use of the method at the beginning of the year.)

Conclusions

As far as the controls were concerned, pupils in these classes reached the same level in both examinations in their use of examples as a means to clarification of ideas (an average mark of 7; the slight shifts up or down have no statistical significance). In other words, if no special study of this method is made, there will be no change in the average mark and no change in the number of pupils using it: i.e. about 50 percent; this being the characteristic situation found in normal occurrence where no special treatment of the method is given.

On the other hand, in the experimental classes not only did the number of pupils using the method rise (in Grade 10), but the level of attainment in the quality of the examples used also rose in regard to both classes (in Grade 11 there was only a slight difference as regards the numbers of pupils making use of the method). At the end-of-year examination, achievements in these classes were above average: i.e. the system used in teaching this method principally shows its effect in improving the quality of the examples cited by the pupils. In Grade 10, the system also resulted in raising the number of pupils using the method to over fifty percent of the test population.

The system we propose, of course, still leaves it to the pupil to choose from among the various methods for clarifying ideas, those means which he personally prefers; it does not, by any means, force him into using the method of exemplification.

C. THE CONNECTIONS BETWEEN THE VARIOUS ASPECTS OF WRITTEN EXPRESSION

Down to this point we have been concerned with a breakdown of the various components of written expression, examining the achievements of our pupils in the various separate and individual aspects of the subject.

It now seems desirable to move on and look at the way the various aspects are connected one with another in the writing of the whole composition.

The following questions were posed in order to help check out this point:

a) Are there any qualitative connections between the various aspects of written expression? Do these spring from the character of the aspects themselves rather than from the various systems of teaching? Is there, for example, a connection between the level of logic shown in the writing and the level of linguistic attainment? Can one show a correlation between the pupil's achievement in tests of syntactical sentence analysis and his attainment in writing a syntactically correct sentence?

The research project enabled us to check such connections by examining the level of correlation existing between the achievements of the same pupils as these relate to the various aspects appearing in a single composition i.e. the one written at the beginning of the experimental year.

b) Are there any correlations not present at the beginning of the year which can be shown to exist at the end of the year's program? Have those that were present been strengthened, weakened, or even eradicated by this year's study? What changes have

taken place in these correlations within the classes which studied according to an integrated and directed system as compared to those changes which may have taken place in classes which did not follow this system, but rather used the usual methods?

These questions can be answered by comparing the correlations between the various aspects in the initial composition and the terminal composition.

c) What connection exists between the achievements of the pupils in the experimental class and those in a control class as regards any single aspect after the year's study, and the "natural achievements of the same pupils in the same aspect as measured in the initial composition written before any special treatment?

Where Did We Find Connections Between Achievements in Various Aspects of Written Expression?

The question to be asked here is whether a pupil's achievements in a specific aspect are as high, or as low, as they are in a second aspect when these achievements are measured within one composition or one set of tests? In other words - are achievements in a certain aspect connected in any^{way} with achievements in another aspect? Since a pupil's composition and test papers written in one examination constitute the unchanging factor, the correlation being checked is, in fact, the correlation between the various aspects themselves; and from the point of view of the subject of written expression, the question can be rephrased to ask whether there is any connection between the various aspects of the subject, between which aspects, and to what extent.

An examination of the results of the entire experimental population showed that there were connections between all the various aspects. The median of the correlations between aspects checked by means of tests (i.e. those examining logic, syntax and language) was 0.383. The median of correlations between aspects checked via compositions (i.e. logic syntax, language and methods of clarifying ideas to the reader) was 0.56.

The high correlations in each group can be explained in response to a number of factors: the issue of intelligence which operates in respect of one of the areas under examination; the qualitative connection existing between the various aspects checked; and the factors involved in the very medium of examination, in other words, the ability to deal with tests constitutes a factor in correlations between aspects checked by tests, while the ability to cope with the demands imposed by writing and composition is a factor in determining correlations between those aspects checked in this manner. (The examiner who checks and evaluates the compositions also constitutes a unifying factor).

We also checked the connection between the achievements registered in the tests and those registered in active writing - i.e. in composition. Correlations between the aspects checked by tests and those checked in composition were lower in comparison with previous correlations - the median correlation being 0.215. Thus in the space diagrams¹ (initial examinations) we have a good picture of the way in which the two separate blocks emerged: one composed of those aspects checked with the help of tests, and the other made up of those checked through composition examination.

1) Programmed and worked out in accordance with the Guttman space diagram, with the kind assistance of Professor Louis Guttman and the Institute of applied Social Research, Jerusalem, which he currently heads. The diagrams appear on pages 275-276.

The reasons adduced above explain why there is a relatively high correlation existing between the various aspects checked either within the tests, or within the compositions, and they are certainly responsible for some part of the discrepancy between the high correlations as these emerged in the closed units (tests/composition) and the low correlations emerging when both these units are compared together. Nevertheless, some part of this discrepancy is also to be seen in the light of the difference which exists between the examinee's active knowledge (as this is expressed in his composition achievement) and his passive knowledge (which shows up in his test achievements). What is needed here is further research to determine the special weighting which should be attached to each of the various influential factors.

Important educational significance attaches to the fact that there does exist a connection between the various aspects, but that the connection is not of the highest. Thus, for example, there is a connection between the achievements registered in the study of formal syntax (as this is learned in schools via sentence analysis) and between achievements in syntax as it is used in composition writing; but the connection is not a strong one (0.27), and we cannot rely on it in teaching. In other words, we cannot assume that a pupil who shows a high level of achievement in formal syntax will, therefore, be equally capable of writing a correct sentence when he comes to apply his knowledge in composition work.

The position is similar as regards language attainment. The correlation between test achievement (i.e. passive knowledge) and achievement in composition is 0.28. Similarly low correlations exist between checks of logic as used in tests and as used in composition (0.20).

The picture¹ shown by the following table is based on information provided by the entire research population as examined before the start of the year (i.e. it reflects the "normal" school situation in Israel) and thus without any special treatment as a result of the experiment.

Composition		Tests	
Syntax \			Syntax
Language			Language
			Intelligence
Logic		Logic	
	Ways of Clarifying Ideas		

Here we are immediately faced with the connections existing between the various aspects. The correlated aspects in tests and in composition (even if the distance separating them is considerable) are nevertheless parallel (syntax, opposite syntax, etc.). In the middle stand language and logic - i.e. these aspects are connected with the others at a higher rate of correlation. Syntax stands closer to language, and the aspect of methods of clarifying thought lies closer to logic.

- 1) This picture is reflected in regard to both groups, experimental and control, in both examinations, initial and terminal. See the space diagram at the end of this section on page 276-277.

This picture is slightly unexpected in that language holds a more central place than syntax. We had assumed that syntax would take the central place, standing close to logic, since we considered there was a stronger connection between syntax and logic than there was between language and logic and this seemed to be confirmed by a check on the results of the first stage of the experiment when syntax held the central place¹, close to logic. It emerges from further examination that in the second stage of the experiment we employed a broader concept for the language aspect, including within it the use of prepositions and conjunctions, usage of words and levels of style.

An interesting detail which emerges is that the aspect of logic, as measured in tests, is not connected in any fixed manner with the other aspects measured in this way. (Compare its changing position in the four space diagrams at the end of this chapter).

What conclusions can be drawn from these results?

The first point which emerges is that a teacher wishing to check his pupils' achievements in written expression cannot rely on their level of attainment as these are shown in tests.² Thus, for example, a teacher will not be able to judge a pupil's ability to sort information, to distinguish between major issues and minor questions depending on the major premise simply from that pupil's ability to write correct paragraph headings; nor can any reliance on a pupil's skill in written expression be placed on how he performs in tests

1) See pages 92, 93, 94.

2) We can, of course, only relate this to those tests which we ourselves prepared and tried out.

designed to check syntax knowledge, choice of words or the ability to differentiate between various styles. We have been unable to discover any short cut to checking a knowledge of written expression other than by examining such expression as it appears in a fully written passage.

What conclusions can be adduced from the existence of the close correlation between the various components of written expression? (i.e. the various aspects checked in the composition).

It seems to us that it will prove worthwhile to preserve this existent integration within the actual teaching of written expression. The method of calculation that we used did not permit us to examine whether or not this integration had been strengthened as a result of teaching according to the system we had proposed, i.e. one which was based partly on exercises linking the various aspects which comprise written expression. We did, however, compare the difference between the initial and terminal results emerging as regards these correlations in the experimental classes with those that were shown in the control classes (compare the four diagrams at the end of this chapter). But, this comparison does not teach us anything about this particular problem. This is to be explained by the fact that the achievements of the experimental classes rose so much as between the initial and terminal examinations that the correlations were broken: there occurred a restriction of range, thus correlations which had been high prior to the experiment now fell. In the control classes, on the other hand, Grade 10 improved and Grade 11 fell off, and there was no general progress. The range remained as it had been before, and the correlation was unbroken- it even rose; our assumption is that the teachers' intervention in these classes was not so large, while the factor of intelligence played a decisive role.

Where Did We Find Connections Between the Various Aspects of
Written Expression in the Initial Examination?

The Table shows the connections found to exist throughout the entire research population, control and experimental groups alike.

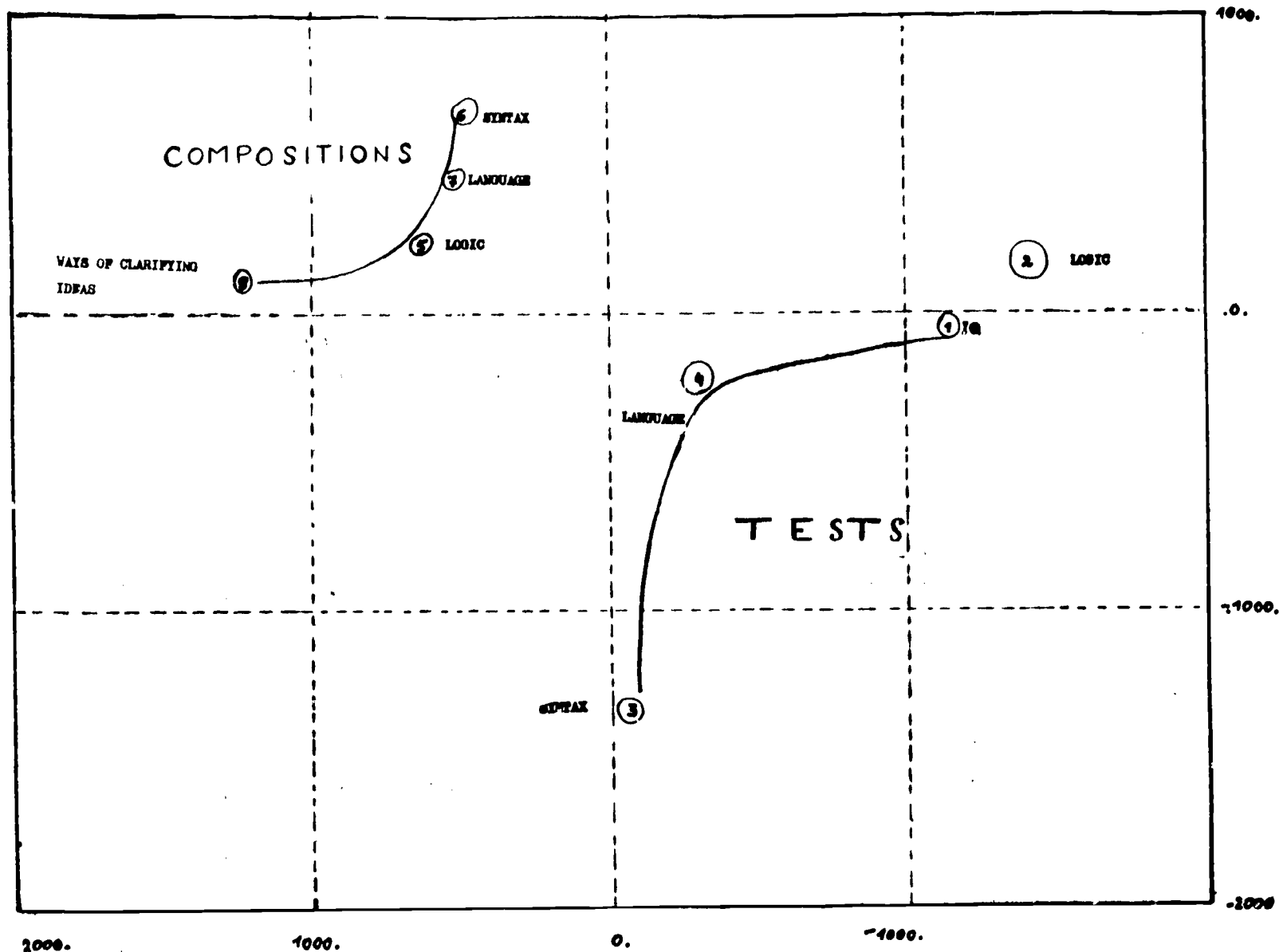
(High correlations: over 0.316).

Aspects	Correlated to the aspect	Correlation (high correlation = over 0.316)	Level of Significance
Logic in tests Syntax in tests Language in tests Logic in composition Syntax in composition Language in composition Methods of clarifying ideas	I.Q.	0.640 (0.263) 0.471 (0.266) 0.316 (0.313) (-0.133)	xx xx xx xx xx xx —
<u>Tests of Logic</u> Syntax in tests Language in tests Logic in composition Syntax in composition Language in composition Methods of clarifying ideas	Tests of Logic	(0.193) (0.383) (0.204) (0.181) (0.197) (0.145)	x xx xx xx xx x
<u>Tests in Syntax</u> Language in tests Logic in composition Syntax in composition Language in composition Methods of clarifying ideas	Tests of Syntax	0.427 (0.230) (0.272) (0.193) (0.146)	xx xx xx xx x
<u>Tests of Language</u> Logic in composition Syntax in composition Language in composition Methods of clarifying ideas	Tests of Language	0.334 0.347 (0.285) (0.266)	xx xx xx xx

Aspects	Correlated to the aspect	Correlation (high correlation = over 0.316)	Level of Significance
<u>Logic in Composition</u>			
Syntax in composition	Logic in Composition	0.560	xx
Language in composition		0.597	xx
Methods of clarifying ideas		0.563	xx
<u>Syntax in Composition</u>			
Language in composition	Syntax in Composition	0.639	xx
Methods of clarifying ideas		0.307	xx
<u>Language in Composition</u>			
Methods of clarifying ideas	Language in Composition	0.435	xx

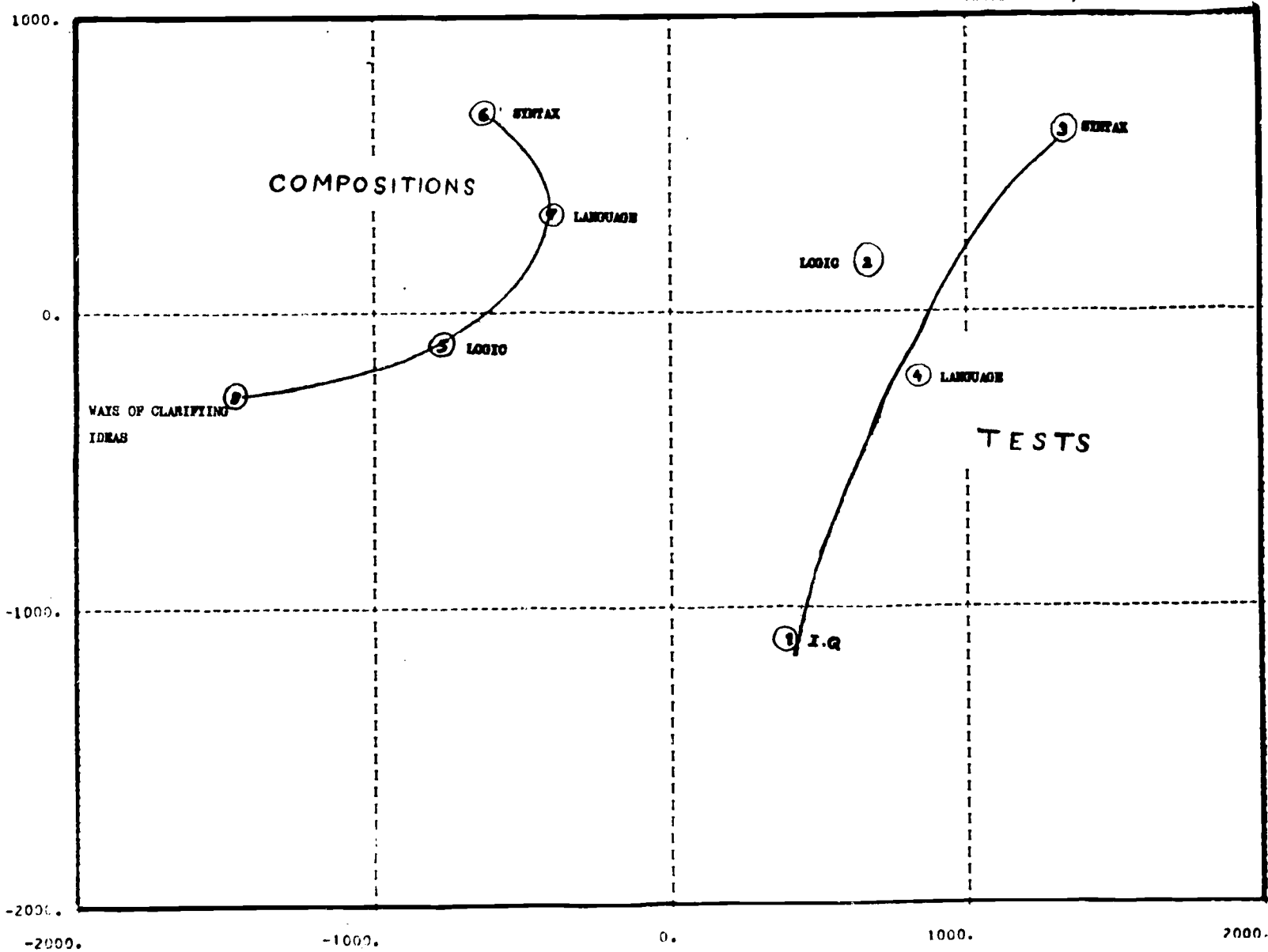
- 276 -
SPACE DIAGRAM.

EXPERIMENTAL CLASSES, BEGINNING OF YEAR



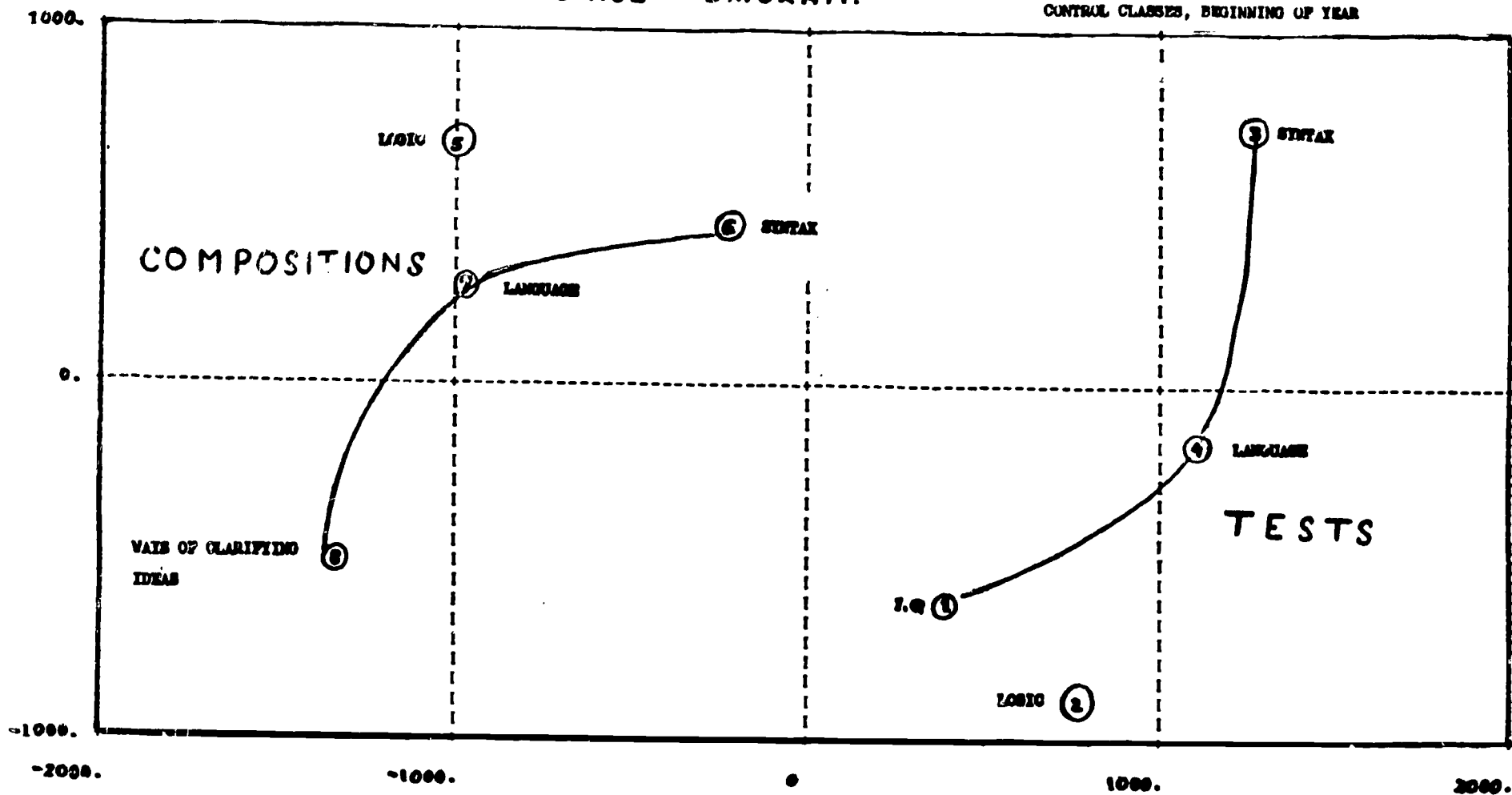
SPACE DIAGRAM.

G-1 EXPERIMENTAL CLASSES, END OF YEAR



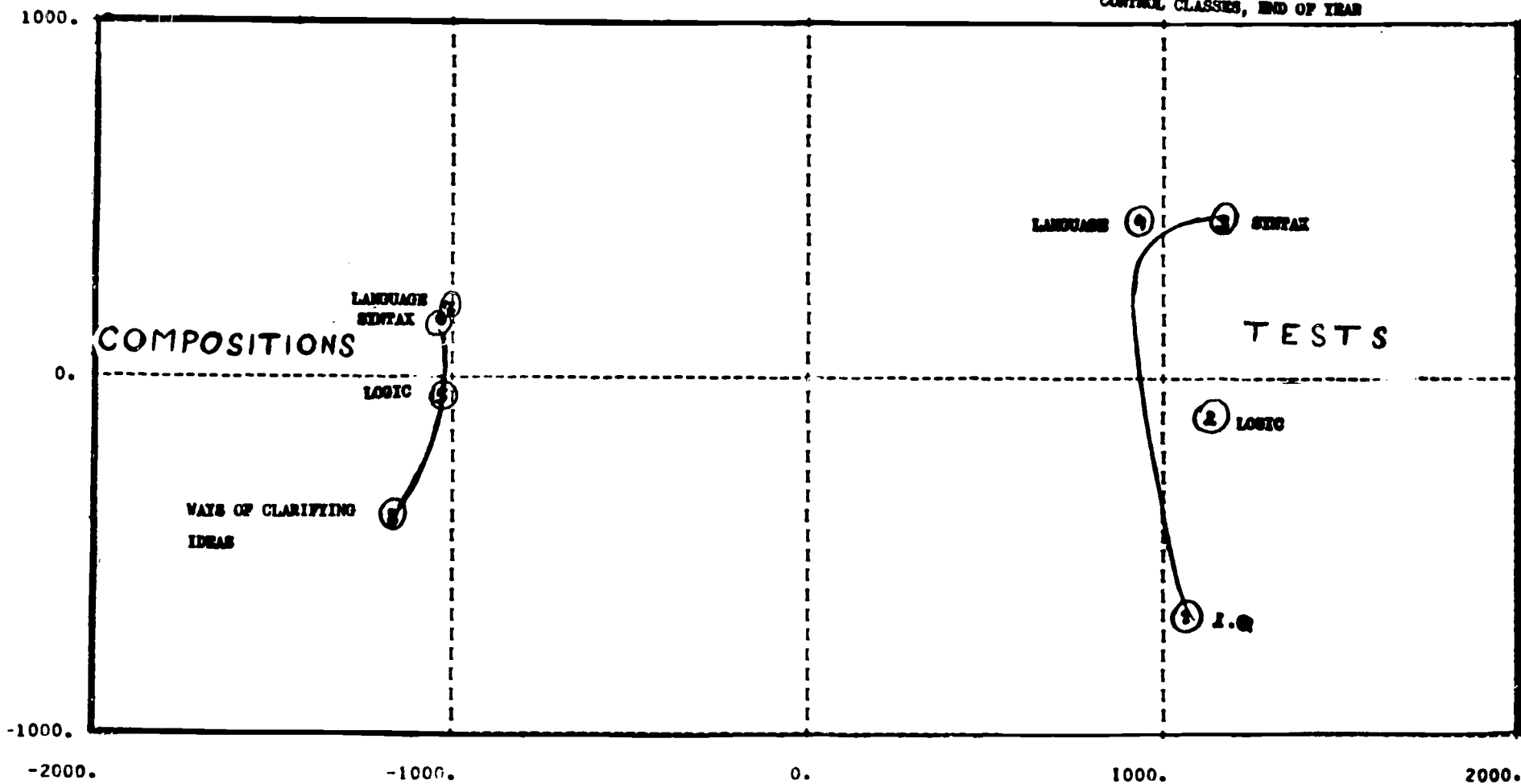
SPACE DIAGRAM.

CONTROL CLASSES, BEGINNING OF YEAR



SPACE DIAGRAM

CONTROL CLASSES, END OF YEAR



D. THE RELATIONSHIP BETWEEN WRITTEN EXPRESSION AND OTHER FACTORS

Having analyzed the results relating to the various aspects of written expression, let us now try to see how other factors influence the study of these aspects. Teaching and education are composed of so many factors that it is doubtful if a research worker can go as deeply into them as might be desirable: it is not certain that one can discover what individual part these factors play in those changes which take place within a pupil, and, particularly, how these various activities dovetail into each other.

Our particular research project made no pretence of encompassing all the various factors which might be discussed, not even as these could be shown to affect such a "limited" area as written expression. But nevertheless, we did try to examine the connection between some of these more obvious factors and the issue of teaching written expression.

Thus, as a start, we examined those factors which have a direct bearing on the conclusions, both those of a research nature and those which can be applied to practical teaching, which we must arrive at in proposing a certain teaching system:

- 1) To what ages is the system best suited?
- 2) For what type of schools should it be recommended?
- 3) Which pupils, weak, average or good, will benefit from it?
- 4) To what extent does a pupil's progress under the system depend on his initial level?

Factors Which Must be Taken into Consideration When Recommending a Teaching System

1) How did the different systems of study affect pupils in the experimental and control classes of Grade 10, and how were those in Grade 11 affected? Is there a connection between the attainments of the pupils and the classes in which they were studying? Which age will achieve most under the system as we propounded it in the experimental classes?

Our assumption was that at the end of the year there would be little difference between the attainment level of Grade 10 and Grade 11. Further, to the extent that such a difference might appear slightly in favor of Grade 11, we did not think it would be of sufficient significance as to warrant the conclusion that teaching according to the system should be delayed to Grade 11.

The questions propounded above, which are no more than a presentation of various sides of the same problem, can be answered by reference to two sources: a calculation of the correlation between attainment and the class level, and a measuring of the progress registered by the various classes in the different aspects.

Calculation of the correlations shows that in the initial examination there were in fact, no correspondances between pupil attainments and the school grades with this finding being true both for experimental and control groups (e.g. pupils in Grade 11 were no better at composition writing than those in Grade 10). At the conclusion of the year's experiment, our assumption was borne out: in the experimental classes there was still no real connection between pupil attainment and the school grade while in

the control groups there was a negative correspondance, with pupils of Grade 10 doing better than those in Grade 11.

Achievements in Composition	The Correlation Between Pupil Attainment and School Grade in the Initial Examination		The Correlation Between Pupil Attainment and School Grade at the End of the Year	
	Experimental	Control	Experimental	Control
Logic	0.03	0.191	- 0.03	-0.19
Syntax	-0.01	-0.01	-0.06	-0.33
Language	0.07	0.13	-0.16	-0.32
Methods of Clarifying Thought	-0.04	0.02	-0.02	-0.31

The picture is the same when results are presented in the form of a measurement of attainments: (see Table on p247). The experimental classes show only a very small difference as between Grades 10 and 11, with the latter registering very slightly higher marks.

Thus the answer to the question which we posed at the outset of this section is that the proposed system is equally suited to Grades 10 and 11.

2) Was there any difference between the different categories of schools from the standpoint of pupil attainment both as regards experimental and control groups?

All categories of schools showed results in favor of the experimental classes, while differences between progress as recorded by the experimental classes and that shown in the controls were consistently significant (see

Table on page 244).

In which category of school was the advantage enjoyed by the experimental classes greatest?

As regards Grade 10, it was the kibbutz classes which revealed the greatest difference between attainment levels scored by experimental and control groups (an average of 0.96 marks), following these, the next highest differences were recorded in respect of the "good" urban secondary schools (an average of 0.55) and finally, the "average" urban secondary schools (0.25).

As regards Grade 11, the difference between experimental and control groups was highest in the "average" schools (1.36), followed by the kibbutz schools (0.98) with the "good" schools last (0.71).

It will also be of interest to know what the difference is as regards the progress shown in different schools within the same group: how do pupils in the different schools progress when they study in accordance with the normally accepted system (i.e. the control groups), and how do they progress under the proposed system (the experimental classes)?

As regards the control groups, the "average" urban secondary pupils made better progress than did those in kibbutz, with the latter doing better than those in the "good" urban schools (these results relate to Grade 10 only. Since there was a fall-off in regard to Grade 11, the results in this grade have not been taken into consideration here).

In the experimental classes, Grade 10 classes in the kibbutz schools showed more progress than did those in "average" urban schools with the latter slightly better than the "good" urban schools. In Grade 11, classes in the kibbutz schools and in the "average" urban schools progressed at an

equal rate which was better than that shown by the "good" urban schools.

Thus, in summarizing our answer to this question, we can say that the proposed system is suited to all types of Israeli secondary schools (from remarks made during the study days held for teachers, it became clear that even those working in the "average" schools could select from the abundance of material and adapt the system to the needs of their particular pupils).

While it would appear that the kibbutz and "average" schools derive more benefit from the system, one must not forget that statistically one cannot measure the progress of "good" and "very good" students to the same extent as one can the progress made by weaker and average students, and the "good" schools, naturally enough, have many of the former type of pupil. Teachers' comments from those working the system in the "good" schools reveal that our method of teaching was one which appealed strongly to their pupils.

3) How did the system affect the different kinds of pupils, the weak (initial mark of 4-5), the average (the initial mark of 6-7) and the good (initial mark of 8-9)? Which derived most benefit?

The most progress was registered by those who had initially been the weakest, with this finding true for both experimental and control classes. Next in order of extent of progress were the average pupils, while the good pupils registered the least improvement, though in this connection, one must remember that very good pupils have less room for improvement.¹

1) See the remarks made about "good" pupils in the summary to the section dealing with progress according to types of schools, on this page.

From this point of view, the experimental system did not change the existing relationship between the extent of progress as recorded by the weak, average and good pupils.

But, there is a qualitative difference between the extent of progress recorded in respect of the experimental and control classes. While those in the control groups who were poor in composition showed the greatest measure of improvement, they nevertheless, still only reached the level of "satisfactory", advancing by but one mark. Yet the same weak pupils in the experimental classes passed beyond the level of "satisfactory" and into that of "average" with a move forward of 1.886 marks! The same situation is found as regards those who were initially regarded as average: those in the control groups did not, in fact, progress, while those in the experimental groups passed out of the lower level of "average" marks and into the upper brackets of this category, with an improvement of 0.771. The full picture on next page can be seen in the table.

Pupils	Average Mark in Examination	Average Mark in Terminal Examination	Difference Between Marks (i.e. progress)
Weak (mark of 4-5)			
Experimental	4.771	6.657	1.886
Control	4.981	5.981	1.000
Average mark of 6-7)			
Experimental	6.686	7.437	0.771
Control	6.469	6.543	0.074

We conclude, therefore, that the proposed system is suited to all types of pupils and advances both weak and average pupils to a very satisfactory extent.

4) To what extent is a pupil's progress linked to his initial level? Is there a connection between achievements in a certain aspect in the initial examination and between achievements in that same aspect in the terminal examination?

Table of Correlations Between Initial and Terminal Examinations

Aspects	Correlation in Experimental Classes	Correlation in Control Classes
<u>Tests:</u>		
Logic	0.488 XX	0.339 XX
Syntax	0.439 XX	0.681 XX
Language	0.586 XX	0.562 XX
Average	0.503	0.537
<u>Compositions:</u>		
Logic	0.349 XX	0.164 -
Syntax	0.390 XX	0.103 -
Language	0.369 XX	0.067 -
Methods of Clarifying Thought	0.191 -	0.067 -

XX = Significance of .001

a) Tests

Generally speaking there exists a substantial correlation between the results of two repeated tests. This rule is confirmed, too, in our own experiment where the connection is strong and significant: 0.50 in the experimental groups and 0.54 in the controls.

Some 25% to 29% of the achievement in the terminal examination is to be credited to the initial standing of the pupil.

b) Compositions

In the experimental groups some 12% of the terminal achievement is to be credited to the pupil's initial standing. The connection is significant (e.g. a good pupil keeps his high standing in the class), but it is not high: it leaves room for the intervention of the teacher. Worthy of special note is the absence of connection between initial and terminal achievements in respect of the aspect "methods of clarifying ideas". This aspect, which was previously unfamiliar to the pupils as a special area of study, was taught in the experimental classes; experimental pupils reached attainment levels in this area which were entirely unconnected with their initial performance.

In regard to the control groups, there was no correlation between achievements in the initial and terminal examinations. Progress in Grade 10 and the fall-off in Grade 11 did not appear in accordance with initial standings. This can be explained by recalling the fact that different teachers in different classes emphasized different aspects, thus the initial situation was changed with some pupils, while with others it did not change; hence the connection is loosened.

General Factors Relating to the Teaching of Written Expression

A number of additional questions must be posed when we consider the teaching of various subjects. These relate not to the essence of the system to be used in teaching the subject as we have proposed here, but refer rather to the general possibilities of teaching. By this we mean such questions as, for example, the possible connection between the pupil's sex, age, country of origin (i.e. cultural background) and native language and his achievements in the subject taught.

Most of those engaged in education have divergent opinions as to these issues, but they are not always based on scientific measurements.

In questionnaires addressed to the pupils, they were asked to fill in details as to their age, sex, country of origin and the language they normally chose for reading. With the help of the information we were able to compare these details with their achievements both in tests and in composition work and thus see where connections could be found and how strong these were.

1) Sex

Is there a connection between the sex of a pupil and attainments reached by that pupil in the different aspects of written expression in Hebrew?

Measurement showed that there is no significant connection between sex and attainment level. There was a consistent advantage enjoyed by the boys, but it was in every case of a very small magnitude (there was not one single correlation which exceeded 0.138. None of the correlations were significant.)

2) Country of Origin

Is there a connection between a pupil's country of origin and attainments reached by the pupil in the different aspects of written expression in Hebrew?¹

In the initial examination, measurements showed that there was a slight consistent advantage to those pupils born in Israel, but the advantage was of no statistical significance. The advantage was significant in regard to one aspect alone, and very understandably, too: in regard to linguistic knowledge as this was expressed actively in composition writing.

The slight connection between attainment level and the country of origin, as found in the initial examination, weakened during the year to such an extent that, at the end of the year, all that remained was a slight tendency in favor of the native-born, with none of the correlations being significant.

One can thus say that the difference between native-born and immigrant pupils is so small that it cannot be felt in daily classroom work on written expression in the secondary school.²

The following table shows the connection between country of origin and attainments in the various aspects of written expression.

-
- 1) We did not include in these calculations those who immigrated to Israel just before the experimental year.
 - 2) For the sake of comparison, see the remarks made as regards the first stage of the experiment, on page 110-111.

Aspect	Correlation in Initial Examination	Correlation in Terminal Examination
I.Q. ¹	0.185	
<u>Tests:</u>		
Logic	0.080	0.038
Syntax	0.143	0.027
Language	0.113	0.158
<u>Composition:</u>		
Logic	0.067	0.034
Syntax	0.138	0.033
Language	0.237 ^{xx}	0.075
Methods of Clarifying Thought	0.063	0.095

3) Preferred Language for Reading

A question which is closely related to the previous one is that which deals directly with the connection between the language preferred by a pupil and private reading (i.e. Hebrew or a foreign language) and his achievements in the various aspects of written expression in Hebrew.

Calculation of the correlations shows that there is a connection between a pupil's choice of Hebrew or a foreign language for reading and the same pupil's achievements in written expression as these are measured in most tests. This connection is revealed both as regards the initial examination and the terminal one. The only aspect in which the connection is weak is syntax (and here one must recall the fact that there are pupils who can correctly analyze a sentence, but who nevertheless do not know

1) The connection between I.Q. and country of origin are to be explained by the fact that the tests we gave were of a vocabulary nature and demanded knowledge of subtle distinctions in Hebrew.

the language well. In the experimental classes, where logic was also treated, the connection was weakened in the terminal examination as regards both syntax and logic.

The picture is different as regards ability in active written expression, i.e. in composition. In the initial examination there was a significant connection between the language chosen for reading and attainments in all aspects other than that concerned with methods of clarifying thought (use of these methods is not connected with the preferred language for reading). But in the terminal examination the connection was much weakened, both in regard to the experimental and control groups. In other words, in the course of the school year knowledge of Hebrew had also improved as regards those who did not normally choose to read in Hebrew, and this preference no longer affected their attainment in written expression.

Aspect	Correlation in Initial Examination	Correlation in Terminal Examination	
		Experimental	Control
I.Q.	0.170 ^X		
<u>Tests:</u>			
Logic	0.169X	0.142	0.347X
Syntax	0.068	0.073	0.315XX
Language	0.203X	0.271X	0.398XX
<u>Composition:</u>			
Logic	0.230XX	0.113	0.142
Syntax	0.193XX	0.172	-0.040
Language	0.243XX	0.175	0.084
Methods of Clarifying ideas	0.131	0.089	-0.052

4) Influence of Previous Study

We were also interested to see what connection existed between a pupil's previous study of written expression and his attitude at the end of the year. What, for example, was the answer to the question: Does a pupil who declares that he has previously studied "composition", now prefer composition to other facets of Hebrew studies as taught in school? As we discovered, there is no such connection between previous study of composition and a pupil's preference for the subject when he compares it to other areas of Hebrew studies in school.

Is there a connection between a pupil's declaration that he previously studied composition and his current attainments in the various aspects at the beginning of the experiment?¹ The illuminating and significant answer to this question is: No. There is no connection between the fact that a pupil had or had not in years prior to the experiment, learned how to write compositions along the usual teaching lines practised in Israel and his attainment in any aspect of written expression as measured in the initial examination of the experimental year.

5) Preference Among Subjects Included in Hebrew Studies

Pupils were asked to arrange in order of preference the various subjects dealt with in Hebrew lessons. (These were: poetry, novels, essays, syntax, nouns and verbs, history of language).

We wanted to find out from their answers whether there was a con-

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- 1) It can be suspected that pupils were not always accurate in giving details of their previous studies though we tried to ensure that questions were so framed as to rule out the possibilities of inaccurate answers.

nection between a pupil's choice of one or other of these subjects and the same pupil's age, preferred language for reading, or sex. It was discovered that in fact there is no such connection between the choice of a preferred subject and the age or preferred language for reading. There remained then only the commonly accepted view, which was here confirmed again: there does exist a connection between the pupil's sex and the preferred subject. In regard to poetry, it was the girls who preferred this subject in far great numbers than the boys, while the boys preferred syntax far more than did the girls. In regard to other subjects in the list, there was no difference of preference along a boy/girl division line.

The principal point of the enquiry was to ascertain whether there existed a connection between the fact that a pupil preferred one or another of the subjects and the same pupil's attainment in the various aspects of written expression. Thus: is there a connection between a pupil's preference for or rejection of syntax and the same pupil's attainments in syntax in written expression, or, is there a connection between a pupil's attitude to grammar as this affects nouns and verbs and his attainment in language aspects of composition writing?

Calculations of the correlations throughout the entire population affected during the year point to an unequivocal answer: there is no such connection. Practically speaking this result has great value: pupils are capable of reaching attainment levels in written expression irrespective of any personal inclination.

6) Preference in Subjects for Composition

Since we had been throughout concerned with composition, we also decided to check the connection between the "type of writer" and the different factors likely to influence him during writing¹.

Calculations of the correlations² showed that there exists no connection between a pupil's age i.e. 16 or 17, and a preference for an emotive, philosophic and factual type composition subject. There is also a lack of connection between subject preference and the pupil's preferred language.

Previous study of written expression is also found to have no connection with the type of subject chosen.

- 1) In order to classify pupils into "types of writers", they were asked to arrange in order of preference a list of suggested composition subjects. These subjects were of an emotive, philosophical and factual character; the order of preference in which they were listed determined the "type" we assigned to each pupil. In order to check out that this typing was consistent and not simply the result of the pupil choosing different types of subjects without this choice being indicative of a certain direction, we calculated the extent of connection between choice of different types of subjects. Results gave a correlation between emotive and philosophical choices as -0.463^{xx} , between emotive and factual as 0.455^{xx} and between philosophical and factual as -0.577^{xx} . In other words these negative correlations, all of which were high and significant, point conclusively to the fact that pupils choosing one type of subject, did not choose a second type. Thus the method selected really did point to a classification into "types of writers".
- 2) We took into consideration only those correlations which were high; this we did since, at times, side considerations enter into the pupil's weighing of the issue: the subject may belong to the type which he normally enjoys but it may nevertheless deal with aspects from which he shies away, etc.

Confirmation was found for the commonly accepted view which links the pupil's sex with the "type of writer": boys tend to prefer to write on factual subjects; girls tend but slightly toward the philosophical, but heavily toward the emotive type of subject.

But, contrary to the commonly accepted view point, those who chose poetry as their preferred subject in Hebrew studies did not necessarily choose emotive subjects for composition. There is a connection between pupils who prefer poetry and a tendency for these pupils to choose philosophical subjects, while there is a negative connection between the preference for poetry and the tendency to choose a factual subject: pupils preferring poetry do not choose to write on factual subjects.

Of all subjects included within the general heading of "Hebrew", poetry is the only one which arouses such clear reactions. We saw no connections, positive or negative, between other subjects and a preference for emotive, philosophical or factual composition writing.

It is important to the teacher to know whether there is a connection between the subjects a pupil chooses for composition (i.e. those of an emotive, philosophical or factual character) and that same pupil's attainments in the various aspects of composition. Checking of the information at our disposal indicated that, in fact, no such connection exists.

A possible conclusion to be drawn from this result is that a pupil may fail in composition subjects which he himself prefers; but a further practical, possible conclusion is that a pupil can reach a satisfactory attainment level in composition writing even on subjects about which he might not be naturally inclined to write.¹ The importance this has for classroom teaching is quite obvious.

In summarizing our answers to the questions relating to "types of writers" it is possible to say that while it is desirable for composition teachers to vary the types of subjects set from time to time, this will be done with the aim of giving pupils scope to fulfill their natural bent in writing rather than with the aim of thereby permitting them to reach a higher level of attainment in their writing. It is possible to teach pupils to write on subjects which they may not naturally choose, and nevertheless reach considerable achievement levels. Thus one should, in classroom teaching, engage in the various types of written expression as these accord with the declared aims of the subject.

7) Syntax

The results which touched upon syntax were of special interest

1) Results of other research studies lead to similar conclusions. A research project undertaken by Dr. Yael Flumm, of the John Dewey School of Education in the Hebrew University, Jerusalem, led to similar results as regards other subjects when these are studied by pupils aged 14-17. (The research is still unpublished).

to us in view of the attempt which we had made to integrate the teaching of syntax with the teaching of written expression as a whole. The following is a summary of our findings as they relate to syntax.

We checked attainment in syntax from two distinct points of view: in the first place, a knowledge of formal syntax: the parts of a sentence, the types of sentences, ability to distinguish between a sentence and a sentence fragment which is incomplete from a formal syntactical viewpoint.¹ In all of these the pupil was required to show analytic ability, with the knowledge of syntax being but passive. The second phase of our examination concerned active syntax - the ability to write a syntactically correct sentence when the main concern is written expression as such, i.e. within the framework of a complete composition.

We then checked out the existence of a connection between achievements in these two sides of syntactical ability and other factors involved here.

We have already seen that there is no connection between a pupil's sex and attainments in syntax - both as this subject is tested via a formal knowledge and as shown in the correct syntactical structure of sentences in a composition.

-
- 1) During the initial examination we had checked pupils' ability to distinguish between various types of clauses (adverbial clauses of time, of action, etc.). Results were so good that we decided there was no need to examine this issue again at the end of the year; it was accordingly dropped from our calculations. Research undertaken in the John Dewey School into language knowledge in junior schools yielded similar results.

A very slight connection and this was found to have weakened by the end of the year) was found to exist between attainments in syntax, as judged from both view points, and the pupil's country of origin. But the fact that a pupil was not born in Israel is not found to have any really decisive effect on his achievements in this aspect of written expression. This was a point we had already been aware of in connection with the ability to analyze a sentence, but the check we are presently discussing also confirmed it as regards actual writing of compositions. A similar picture emerges when we analyze the results of the correlation between the language in which a pupil chooses to read and his syntactical attainment (see p 288).

There is, too, no connection between syntactical attainment in compositions and the pupil's level in school, i.e. whether the pupil under consideration is in Grade 10 or Grade 11 (generally speaking formal syntax is taught in one of these two classes). In the control groups, a slight preference in favor of Grade 10 pupils was revealed at the end of the year's program (and this program had also included treatment of syntax).

There is no connection between the position which is held by syntax in a pupil's order of preference among those subjects included in the overall heading of "Hebrew" and the pupil's age. Similarly, no connection exists between syntax being a preferred or less preferred subject and a pupil's mother tongue, i.e. Hebrew or

some other language. But there does exist a connection between preference for syntax and the sex of the pupil: more boys than girls were found to prefer syntax.

Does there exist a connection between a pupil's preference for syntax among those subjects which make up "Hebrew" studies, and the same pupil's attainment in formal syntax and sentence structure in composition work? Not necessarily. There was found to be no connection between a liking or a dislike of syntax and the achievement which a pupil can reach in these two spheres. From this latter result there follows a point which is of importance to practical teaching.

A further question: Is there a connection between the level of syntax and the natural bent of a pupil for various types of composition subject, i.e. emotive, philosophical or factual? Will a pupil who naturally tends to prefer emotive subjects fail in understanding the special syntactical structures needed to write a composition of a philosophical nature and therefore render his composition syntactically defective when he is asked to write on such subjects? It appears that the answer to this is in the negative. There exists no connection between the type of writer and the attainments he may reach in composition syntax.

Is there a connection between the fact that a certain pupil did, or did not, learn syntax in the years prior to the experiment and his current standing at the initial examination in the various

aspects of written expression? The answer is again in the negative.

It is worth emphasizing specially that there is an absence of any connection between previous study of syntax and the knowledge of formal syntax (sentence analysis, knowledge of clauses) as checked at the beginning of the experiment, similarly there is no connection between prior study and the level of syntax as shown in composition writing.

A negative answer¹ must also be given to the question as to whether perhaps previous study of composition writing, including the study of correct sentence structure, might be connected with a particular pupil's attainment in syntax as this was examined in tests and, particularly, composition work at the end of the year.

There is a connection between the syntactical attainments of all pupils and the type of school attended. Attainments in formal syntax analysis are higher in the urban secondary schools and lower in the two-year secondary schools, the vocational secondary schools

1) We were afraid that we would not be able to rely on answers given by pupils to such general questions as "Have you studied syntax, or composition, prior to this year?" Thus we phrased the question differently: "Did you study syntax in such and such classes in elementary school, and in such and such classes in secondary school?" Nevertheless, it is still possible that our information is inaccurate (still one must take into consideration the pupil's own subjective feelings, and in this case, perhaps these are to be preferred. In this instance his answer may reflect his feeling as to whether he has really learned something in previous years' study of this aspect, this may influence his answer.)

and those run by the Kibbutzim.¹ (the correlation is high: 0.438: and significant to a level of 0.01%). Attainments in active syntax (i.e. syntax in sentences) is also connected with the type of school attended, with this too being significant (to a level of 0.05%); but it is lower than that found in passive knowledge: the correlation is 0.229 - in other words, while the ability to express oneself in properly structured sentences is in fact connected with the type of school attended, this is not the sole deciding factor. There are about 95% of the factors at work here.

To summarize the relationship existing between syntax and other factors outside the strict limits of written expression as such, we can say that generally speaking attainment in syntax is unconnected with other factors. The remaining and decisive factor is that of the teaching of the subject and the methods by such teaching is accomplished.

Since composition syntax is one of the focuses of written expression (see page 89) and since it is connected with the other aspects of written (even if the connection between composition syntax and formal syntax is low - 0.272!) , and since it is thus to be concluded that a great importance attaches to the really efficient teaching of this aspect.

The system tried out in the experimental classes led to better results than those obtained in the control groups: thus we can recommend the system of integrated teaching: i.e. working syntax into the overall framework of composition teaching. But, for all that, I must also say that our system is still far from desirable in the field of syntax teaching, both formal and functional (see page 173).

1) One must take into consideration the fact that the schools are selective and that the good ones are assured of good pupils.

SUMMARY OF STAGE "B" OF THE EXPERIMENT

In the second stage of the program we attempted a searching examination of the existing position as regards the teaching of written expression in the senior classes of our secondary schools. We have seen that there currently exists a greater awareness of the problem both among the teachers themselves and among those writing and compiling the text books. But at the same time, observation visits, remarks made by teachers during study days, replies they gave to our questionnaires, and the low achievements of pupils in these classes (the control groups), all of these point to the fact that the teaching of written expression is a neglected subject and one for which many practical tools are still lacking.

In concluding the second stage of the research project, we have seen that our proposed method has a substantial contribution to make to improving the teaching of written expression. The general conclusion is that the method has proved itself to be useful as a teaching system whose aims are the development of thought and its flexibility, the preparation of pupils for the solving of problems in writing (by providing them with the tools whereby they may express themselves clearly and precisely), and educating towards honest thinking, logic and consideration for others (i.e. the reader). A wider outlook on the teaching of written expression, such as we have propounded, involves a change in the attitude to the subject and penetration into areas which lie outside the narrow bounds of what is

normally regarded as "composition". Thus we feel that an important achievement has been registered in that in fact such a change of attitude did take place both on the part of teachers and pupils.

The aims detailed above were expressed in the methods we proposed. It seems to us that achievements here must also be credited to the special and didactic structure of our program. What we proposed is a systematic method of teaching which included exercises built along varied didactic lines. The system offers the writer a number of different methods of which he may make use in clarifying his ideas to the reader. It teaches him to use these methods in a correct manner as regards logical clarity and linguistic expression in general and as regards syntactical demands in particular. The whole program is carried out with attention to integrating all these various aspects of written expression.

Measurements¹ have shown that pupils studying along these suggested lines made better progress, both when one compares their final achievements with their initial standing, and when one contrasts it with the achievements registered in the control groups. The progress mentioned is statistically significant. From the low initial level of average marks ranging from 5.9 to 6.9 in the various aspects of written expression, the method was able to achieve improvements (in the experimental classes) which

1) We are here relying on the achievements as measured in composition and not in tests. Teachers will also find it important in their work to realize that in assessing written expression, one cannot rely on tests, since there is no correlation between achievements registered in tests and those recorded in active writing of a full composition.

brought all pupils above the "satisfactory" level, and into the "average" level, marks ranging from 6.75 to 7.45. In the control groups, marks remained in the low range, from 5.35 to 7.05.

In stage B, just as in Stage A, it seems that pupils were enabled to make progress according to this system without this being connected with factors other than those connected with the teaching itself: It has been found that the low correlation between initial placing of a pupil in a class and his final achievement at the end of the year leaves room for the intervention of both the teacher and the method of teaching adopted. The possibilities of a pupil's progress are not connected in any real way with sex, country of origin, the preferred language for reading, previous study of the subject, natural choice of preferred subjects for composition work¹ or preferences among the various issues dealt with in the overall heading of "Hebrew" studies.² Study along the proposed lines is also unconnected with other factors such as the age of the pupils, the type of school attended, or the standard of the pupils in the class. The system is suitable for both grades 10 and 11, for all types of secondary schools and for different levels of pupils: weak pupils in the experimental classes all progressed beyond the "satisfactory" mark, and average and good pupils also made strides forward.

- 1) Of course, the teacher can consider his pupils' personal tastes in order to make their studies pleasanter, but he should not fear for their progress in functional composition writing because of any conflict in personal taste.
- 2) There is no influence on progress in functional writing to be ascribed the fact that girls choose poetry as a preferred subject, for example.

also made strides forward.

Let us now consider the progress made by pupils in respect of each single aspect. Experimental pupils progressed in the level of linguistic phraseology from a mark of 6.1 to a mark of 7.15 in Grade 10, and from 6.55 to 7.2 in Grade 11. This achievement points to the fact that a system of teaching which aims at developing clear thinking and the solving of problems in written expression, will also lead to linguistic improvements even if no emphasis is placed on exercises in linguistics and style (see page 118 for further details). In concluding our remarks on the subject of linguistics, it should be added that we see reason for a re-examination of the whole question of the teaching of morphology in schools, and this in the light of the high achievements registered in this respect from the very outset. (see page 252).

A re-examination is also called for in regard to the teaching of syntax. Since our checks have shown there to be no connection between achievements in syntax and factors outside of purely teaching considerations (i.e. sex, country of origin, age, personal taste in preferred types of writing, or in a preference or distaste for syntax over other subjects), in the same way as there is no connection between previous study of syntax or composition, it thus appears that the decisive factor is the actual teaching and the methods employed. The accepted ways of teaching syntax are not satisfactory. The syntactical structure of pupils' compositions is deficient while our checks have also verified the assumption that there is no connection between a knowledge of formal syntax and the level of

syntax as this is seen in composition work.

Within the framework of this research project, we have attempted to integrate the teaching of syntax within the general framework of composition teaching. We have found our task the more difficult because of a lack of correspondance between the rules of syntax in Hebrew and the modern spoken language, and too, since the accepted methods of teaching syntax are not geared to serving the needs of a writer who wants to give clear expression to his ideas in all their variety. For all that, the proposed integrated type of teaching has proved its usefulness. The level of syntax in compositions written by pupils in the experimental classes was higher than that shown in the control classes, where syntax was taught along the usually accepted lines; and even as regards formal syntax, the level of the experimental pupils was usually higher than that shown by the controls (see pages 253-255).

And now, from syntax to punctuation. The workbook which the experimental classes used did not contain a special section on punctuation, nor did we treat of it especially within the framework of sentence syntax. Concern with punctuation was for the most part dealt with within framework of the complete "idea-unit", and in every written exercise, the pupil's attention was specially drawn to the necessity for checking syntax and punctuation (see page 257). The method was justified by the results in a field where achievements are usually of a low order (the average mark is usually 5.88). The experimental group progressed well (Grade 10 moved forward by an average of 1.01 marks, and Grade 11 by 0.73 marks), with their attainments bettering those of the control group, who were

taught punctuation in the usually accepted manner.

Logic was an aspect towards whose development the experimental system was largely geared. Considerable achievement was registered here: prolonged and consistent concern for the logical arrangement of words in a sentence, of sentences in a paragraph, of paragraphs in a composition, the need to make logical connections between sentences and paragraphs, the careful watching of the relevancy of what was written and the constant attempt to clarify logical relationships (such as adding the correct reasons and then drawing the appropriate conclusions), all this led to very satisfactory results.

The development of pupils' powers of thinking logically and clearly was accomplished via the orderly teaching of methods by which the young writer's ideas could be clarified: explanatory writing, the use of examples, of concretization and abstraction, of comparison, etc. Imparting the use of these tools served as a framework for the teaching in this stage of the experiment, a move which was dictated by the fact that we saw this area as being important (if neglected) in the technique of written expression and in education toward intellectual honesty and consideration for others. Thus the pupils in the experimental classes made greater progress in the aspect "methods of clarifying ideas" than they did in any other aspect. They became used to manipulating the various methods suggested to them as means to clarifying their thoughts and were able to make efficient use of methods taught them.

As with Stage A of the project, so too, in Stage B, the achievements registered pointed to the importance of directing teaching via a systematic concern for the various spheres of expression, with the treatment given being of an integrated nature¹, geared to the development of clear thinking and clear expression in such a way as to provide the pupil with the right tools for his work while at the same time educating him towards being intellectually honest both with himself and with others.

1) This stage of the project also revealed connections between the various aspects of written expression and it seems worthwhile to preserve this integration as a principle of teaching (see page).

GENERAL SUMMARY

GENERAL SUMMARY

The Research Method

Consideration of any piece of educational research such as ours obligates us to bear in mind that, in comparison with research in other fields, there exists a certain degree of inaccuracy as to the field work on which our type of research must be based when compared with the laboratory conditions others use. Factors over which we have no control necessarily lead to some inaccuracies: lessons originally scheduled as earmarked for the purposes of our research were sometimes cancelled; there were teachers involved in the project who found teaching in general a difficult task and found the material of our project especially difficult; there were those who did not always understand the exercises we had included in the workbooks, or failed to grasp their purpose, there were changes introduced arbitrarily by the teachers in accordance with their own needs, etc., etc.

And, since we were dealing with people, it is even more difficult to speak, in any real sense of the word, of a laboratory: it is impossible to isolate all the various factors, all inter-related, all having their own complex of reactions one with another, which operate in the course of class teaching in any one complete year.

All these points must be borne in mind when we come to draw conclusions from our observations, and for this reason such conclusions, too, cannot be regarded as absolute (thus, for example)

even while the system described here did prove its usefulness, this is not to say that it will always prove useful, or that it will be equally efficacious in every instance).

But, despite all these reservations, it seems to me that the very inaccuracies described form an essential part of a research program of this particular nature which sought to examine general teaching as opposed to an issue of a more specific and defined character. For these are, in fact, the normal conditions of such teaching, while artificial laboratory conditions would merely run the risk of perverting the conclusions. Of course, our method will only hold good so long as the research population is sufficiently large and as faithfully as possible reflects the overall school population which it is desired to examine.

From this point of view, and since our project was tried out on a large sample which did represent the teacher and pupil population and, too, the types of schools existing in Israel, then it seems to me that we can regard the research as valid.

The one hesitation we have in regard to the conditions of research relates to the length of time in which it was conducted: both Stage A and Stage B of the project each took a year. It now seems to us that one school year is insufficient to satisfactorily prove or disprove the worth of a teaching system, and it would be worthwhile to check out the system again in further school years. This same objection operates too in view of the fact that the teachers themselves

only became acquainted with the system while they were actually putting it into classroom practice.¹ Further experiments with the system would

- 1) We ran the experiment again during the school year 1965/66, but this time on a more limited scale, using five classes that had not taken part previously, and teaching them in accordance with the workbook used for the second stage of the project. The teachers working with these classes were using the workbooks for the second year running, thus we were able to judge their work without having to take into consideration the factor of innovatory techniques and, too, without having to allow for the natural enthusiasm one can expect when teachers participate in an experiment: for in this second year there was less of an element of the experiment feeling.

Checking of the compositions written by the pupils affected in this project showed an improvement in every aspect examined. If the progress registered was not always of the highest order and if it was not always significant, nevertheless there was a pronounced and consistent trend to the achievements registered -- one of steady improvement.

Aspect	Average Mark at Outset of Year	Average Mark at End of Year	Progress in Fractions of Marks	Significance (beginning of from significance: 1.96)
Language	7.67	7.86	0.19	1.60
Syntax	7.55	7.75	0.20	1.26
Methods of Clarifying Ideas	6.94	7.21	0.29	1.90
Logic	6.91	7.29	0.38	2.30 (high significance)

(to our regret, the sample is too small to permit of calculations of a thoroughly exact nature).

Comments made by the teachers participating in this year's project showed that they considered their work rewarded by the progress made. Such a comment, coming from teachers whose initial enthusiasm for the system had become rather an acceptance of its routine aspects, is particularly valuable to us. One teacher told us that in this additional year, she no longer feared to make changes, to adapt the exercises to her pupils' needs and to use the wide opportunities of selecting from the wealth of material what her class specially needed. Another teacher told us that at the beginning of the year, many pupils refused to write a composition, claiming that they did

too have given us a better insight into the scope of the material and its correct division as regards different classes in the secondary schools. Actual working through of the material showed us that it was of too wide a scope, with many teachers failing to complete the whole workbook in the course of a single year. One year is insufficient to examine one of the subjects connected with written expression since, too, such a course of action involves isolating one teaching unit from the totality of a subject whose teaching continues over several years.

This research project made use of the technique which compares the achievements of an experimental group with those of a control group, and in so doing we were most careful to ensure that both groups enjoyed equal conditions. We were even more careful in this respect as regards Stage B when we were concerned to provide extra encouragement to the controls - yet even so we were not entirely successful in ridding these groups altogether of a feeling of being "also-rans". The difficulty posed by this feeling is one which operates in almost every case in which this technique of a control group is used. In our particular case the feeling was exacerbated by the fact that for years our secondary school teachers have thirsted for some orderly presentation of material (continued from page): not know how to write; yet at the end of the year there was not one single pupil who declined to write, even though not all of them could be considered as good in this subject.

All the teachers expressed themselves as feeling certain that they had managed to establish the link between thinking and writing, while many of them noted that there had been a transference to other subjects, with their pupils writing more clearly in such lessons as literature and geography, for example.

in the teaching of written expression in high schools, it was therefore very difficult for the teachers of the control groups to accept their status and look with equanimity on the help being given to their colleagues in the experimental classes.

Even though we kept a firm check on ourselves and did not wish to treat lightly the requirement of maintaining control groups, nevertheless, we must, basically, accept the view put forward by Cronbach and others¹ who point out that in educational research it is the results received from the class on which the research is tried out that are the most important. If the picture emerging from the results of the experiment is clear, then one must draw the relevant conclusions.

And, thus considered, the picture which emerges from our research is just such a clear and unmistakable one, one which made its appearance consistently both in the various examinations we administered and in the different methods of checking which we made use of in testing out the results.

B) SUMMARY OF CONCLUSIONS

In summarizing our conclusions we can take into consideration those conclusions reached on the basis of results in both stages of the experiments. These conclusions have an extra strength in that they were reiterated and reinforced in both stages.

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- 1) Cronbach, Lee J., "Course Improvement" Teachers' College, N.Y. Teachers' College, Columbia University, pp. 673-683.
Lindquist, E.F., "Statistical Analysis in Educational Research" Boston, Houghton Mifflin, 1940.

First, a summary of the general factors involved in teaching written expression in accordance with the system outlined here. It seems that the results of both stages of the experiment point to the fact that the teacher of written expression in secondary schools need have no fear of there being a connection between a pupil's learning of written expression and his command of Hebrew. Though there does in fact exist some connection, it is not sufficient to have any bearing on the possibility of learning: there was no difference in the extent of progress made by new immigrants and those born in Israel. I.Q. level, sex, previous study, personal preferences and the type of school attended - all these were found to have no real influence on the chances of a pupil making progress in the learning of written expression. Those factors which are of importance are the teacher, the teaching and the method of teaching during lessons in written expression.¹

As to conclusions concerning the method we propose here: the general result has shown that secondary school pupils using the method have made satisfactory progress. The general conclusions we would draw is that the system has proved itself as one which is based on an early locating of mistakes, as one which then attempts to correct the mistakes but yet does not content itself with merely emergency measures; rather it propounds

1) See further on this point in the assessment of the teacher's influence in the experimental classes, page 302.

a consistent program whereby the pupil is provided with methods of working, at the same time learning to solve problems which occur in writing - it is in this indirect way that he subsequently learns to eradicate those mistakes which were "diagnosed" at the outset. Such a system, which offers the pupil a work method and a way of thinking, which combines spontaneity and association in writing with the ability to make use of logic in examining the various issues, is structured into a number of systematically worked out chapters, it rests on the clarification of various problems which occur in written expression in class, and on home exercises and on the writing of complete compositions. In the light of experience gained as a result of this research project, it seems that the system under discussion is one which is suited to class usage since it permits of both intensive and more superficial treatment both in class exercises and in those set for homework, (thus the pupil is given considerable practice in writing without over-burdening the teacher with marking) further, the program has proved its flexibility - it can be expanded and adapted to the needs of the particular class concerned. Pupils' progress is also to be accounted, in some measure, to the didactic principles underlying the workbook's varied exercises¹, and, too, to the varied areas of interest from which the material for written work and discussion was taken. These important methodological and didactic principles² formed the basis for research both in Stage A,

- 1) In the light of the experiment it now appears that we should cut down on the exercises based on correcting sentences and longer passages.
- 2) These principles could, of course, also form the basis for textbooks on written expression which work in other directions than the one we took and which stress other ways for inculcating methods of thinking or work methods. In the framework of this research we did not undertake any comparative checks into this point.

which was concerned with the structure of the writing, and in Stage B where, the subjects were thought and language, and the work undertaken in accordance with these guidelines has shown itself to be most fruitful.

Down to this point we have been concerned with those conclusions which relate to the system as a whole. It is now time to move on to a consideration of those which apply to the major areas of written expression which we treated in the program: structure and thought and language. (See the foreword to the report, page 13, where we analyze the fundamental components of functional writing whose treatment we accepted as the aim of the research).

The first conclusion to which we would point is that the area of composition construction - including too, the organization of the written work in its various stages - is one that can be taught successfully (i.e. pupils make good progress) whether one takes as one's starting point the directed teaching of composition construction as exemplified in Stage A, or whether one starts rather from a concern for problems of thought and logic as they are connected with expression, as was done in Stage B. It further seems to us that the treatment given in Stage B complements that given in Stage A, and that as a result of this supplementary help those aspects which had not improved in Stage A nevertheless did show a marked improvement in Stage B.¹

1) Here we refer to the aspect "adherence to the subject", an aspect in which Grade 9 in Stage A made but little progress, and to the aspect "logical arrangement" in which the progress registered by Grade 11 experimental classes in that stage was the same as that registered by Grade 11 controls. In both these aspects - which are among the components of "logic in composition" - progress registered by the control groups was of considerable extent in Stage B.

The second conclusion to which we would draw attention is that as regards the area of linguistic attainment, achievements will be creditable if concern is not only for language, but rather integrated within the treatment of thought (logical clarity), educational principles (intellectual honesty and consideration for others), and problems of linguistic expression. This conclusion, which is based on the successes achieved in this system of teaching as exemplified in Stage B, is further strengthened by the successes registered in the aspect of "language" in Stage A, even if in this first stage of the program we were entirely unconcerned with the question of "language" pure and simple, but rather with problems of structuring.

Our third conclusion is that one can also register satisfactory results as regards syntax, as this is expressed in sentence structure within a composition (and, too, as regards formal knowledge in the analysis of sentences in test questions), if one integrates the teaching of syntax with the teaching of other aspects of written expression.¹

In all three of the above conclusions, the point which emerges most forcibly is that of integration: the orderly learning of the technical aspects of the subject, both those connected with structure and those concerned with language problems, connected together by the development

1) It would be desirable to undertake a special research project to re-examine the problem of syntax both from the point of view of descriptive syntax in modern Hebrew and from the point of view of teaching sentence and inter-sentence syntax in a manner whose major purpose would be its application to the needs of composition writing.

of thought and clarity in writing.

This principle must now be given practical expression. It would be desirable to abstract and integrate the best of the two sets of exercises (those concerned with structure and those primarily concerned with thought and language) separated here for the purposes of the research, and to recompose them into one complete working program graded and directed toward improving the teaching of written expression in secondary schools.¹ It would also be desirable were this principle to permeate the entire teaching program: thus an issue such as the development of thought, taught in a directed manner in lessons on written expression,² would be integrated within thought development as it is in any case taught in all subjects concerned with scientific, social science or humanities studies in accordance with the learning aims of each.³ If such an integration were accomplished, teachers of written

- 1) It is worthwhile expanding our knowledge via research into other age-groups. Much has already been done in investigating creative writing and expression among young children, but it seems that there is still room for more research into written expression especially among the 13-15 age group, and among secondary school pupils.
- 2) Much work has been done on thought and history, thought and science, thought and legislation, but not on thought and the teaching of written expression. In the field of thought and language, much research has been done on the development of thought and language among young children, but there is not very much that has been done on investigating thought and language in older age-groups. (See Bibliography.)
- 3) Perhaps one should go even further and devote a special lesson to thought development in which pupils will read appropriate texts, learn to understand them properly, analyse written work and discuss the problems posed by what they have read, work through exercises in logic, in the methodology of science, etc. Further developments of this point are made in the books cited in the Bibliographical appendix.

expression would find themselves being assisted by those principles of thought which are, for example, taught in lessons on mathematics and biology, and would derive help from the linguistic principles expounded in lessons on Hebrew language, literature and Bible, etc.

Such an integrated program would also be of help to other subject teachers: they would know that they could rely on what had been taught in written expression lessons when asking their pupils to do exercises and other work in their subjects, they would know that they could demand more in the way of clear expression both in writing and in class discussion. Under such a program, both teachers and pupils would come to see written expression as a tool designed to help man in every aspect of life - in the sciences as much as the humanities, in public and private life equally.

Such a broader and more fundamental view of written expression as a tool of communication forms the very basis for the learning and educational aims which we have set before ourselves: clear thought and intellectual honesty, the desire to clarify one's thoughts to others, and in turn to understand others. In the words of the mediaeval philosopher Moses Maimonides, as expressed in his "Igereth HaMusal",

"Do not be unmindful in your choice of language; rather take care to choose only the finest language; speak calmly, reasonably, and to the point."

APPENDIX

The Hebrew University, Jerusalem, School of Education

Questionnaire for Teachers of Experimental Classes

First Name: _____ Surname: _____ School: _____

Number of years Hebrew teaching experience in secondary school _____

Number of years Hebrew teaching experience in elementary school _____

A. Have the pupils in your class been given systematic teaching of written expression in former years? _____

B. 1. Which chapters of the work book have you taught intensively? _____

2. Which chapters of the work book have you taught more superficially? _____

3. Since you were almost certainly forced to omit certain exercises, indicate beside each of the reason for doing so, as suggested below, the number of the exercise or exercises not covered (some exercises may well be included in more than one category).

a) Lack of time _____

b) The material studied had already been well understood by the class _____

c) The exercises were too difficult for the class _____

d) The exercises were too easy _____

e) The exercises were not sufficiently clearly worded _____

f) Other failures _____

C. How did your pupils react to the exercises in the work book?

1) Generally speaking _____

2) Which did they enjoy? _____

3) Which exercises bored them? _____

4) Did you notice any change in their attitude to the subject? _____

5) Did they feel that they were making progress in written expression? _____

D.

- 1) What is your own impression of the extent to which the class has progressed? _____
- 2) Judged from the point of view of their effectiveness, which exercises seem to you to have proved good, and what positions would you assign the remainder? _____

E. What comment would you make about the system according to which the workbook was compiled? _____

- 1) What comments would you make about the workbooks various sections?

- 2) What additional comments have you to make about the various exercises?

- 4) What points do you think have been overlooked in the workbook?
Detail your suggestions _____
- 5) Do you think it would be advisable to plan such workbooks for other grades? _____ If so, for which? _____

F.

- 1) Should the experiment be continued into the next school year, would you be interested in participating again? _____
- 2) If this possibility exists, what suggested changes would you like made? _____

QUESTIONNAIRE FOR TEACHERS OF CONTROL GROUPS

First Name: _____ Surname: _____ School: _____

Grade: _____ Educational Qualifications: _____

Number of years experience in Hebrew teaching in secondary school _____

Number of years experience in Hebrew teaching in elementary school _____

A. Have your pupils enjoyed previous systematic teaching of written expression? _____ If so, in what way? _____

B.

1. Have your pupils written compositions during the year? If so, with what frequency? _____

2. Please list the subjects set for composition work. _____

3. How many of these compositions were written in class? How many as homework? _____

4. What guidance did you give your pupils before they wrote these compositions? _____

5. Did you devote special lessons to the return of the corrected work? _____

6. Were your pupils required to correct their work? _____

7. How were such corrections checked? _____

C.

1. Did the class have any other instruction in written expression in addition to the composition work mentioned above? _____

2. Which aspects of written expression formed the subjects for such teaching? _____

3. Which of the following methods did you adopt, and how? _____

- a. The writing of short weekly compositions.
- b. Exercises taken from text books (detail the name of the text book, its author and the type of exercises used)

C. Language drills:

- 1) With the help of a systematic text book _____
- 2) With the help of your own exercises or those compiled by other teachers in your school _____
- 3) With the help of exercises compiled on the basis of pupils' work _____
- 4) With the help of exercises compiled on the basis of literature classes, book reports, etc. _____
- 5) Other methods (please detail) _____

D. How efficient do you think these methods were? _____

E. How did your pupils react to the methods you used? _____

F. Do you have any comments or suggestions? _____

PUPILS' QUESTIONNAIRE

Class _____ Name of School _____

Place _____

Family Name _____ First Name _____

Identity Card Number _____

Draw a circle around the appropriate number in each question:

I am a pupil of Grade 10
I am a pupil of Grade 11

17
1
2

My sex is:

Masculine
Feminine

18
1
2

I was born in Israel
I immigrated at the age of 2 years
I immigrated between age 2 and 4
I immigrated between age 4 and 5
I immigrated between age 5 and 6
(Compulsory kindergarten year)
I immigrated during first grade
I " " 2nd or 3rd grade
I " " 4th or 5th "
I " " 6th grade
I " " 7th "
I " " 8th "
I " " 9th "

19
V
X
0
1
2
3
4
5
6
7
8
9

Is there a second language other than Hebrew, in which you prefer to read?

Yes
No

////////	20
1	
2	

Did you study syntax prior to this year?

In elementary school
Only in Grade 9
Only in Grade 10
Both in elementary and secondary school
I have never studied syntax

////////	21
1	
2	
3	
4	
5	

Have you studied composition writing in previous years?

We did not generally study composition
We wrote composition in class, but not more than once a month.

We wrote compositions and did special exercises in writing.

I studied composition throughout elementary school
Only in Grades one to four of elementary school
Only in Grades five and six
Only in Grades seven and eight
In Grades 9 and 10 of secondary school, too.
Only in Grade 9 of secondary school
Only in Grade 10 of secondary school

////////	22
V	
X	
////////	
1	
2	
3	
4	
5	
6	
7	

If you had to choose one of the following subjects for a composition, which would you choose?

The scenery of the Negev.
I laugh, therefore I am alive.
The quality I most value in a friend
Suggestions for solving Israel's transport problems
The annual class hike.
Theory versus practice
A scientific problem which affects life today.
Woe to the man who learns only from his own experience.
The structure and working of the U.N.
The development of an economic branch that would strengthen Israel's economy

////////	23
1	
2	
3	
4	
5	
6	
7	
8	
9	
0	

Which of the following aspects of Hebrew studies do you prefer most, and which least? Write in the space provided, from left to right, the numbers of the subjects according to the order of preference:

- 1) Poetry
- 2) Literary Prose (stories, etc.)
- 3) Functional Prose (articles)
- 4) Syntax
- 5) Nouns and Verbs
- 6) The Story of Language

24	25	26	27	28	29

Example:

6	4	3	2	1	5
24	25	26	27	28	29

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**EXAMPLE OF
EVALUATION FORM**

TESTS																																	
IDENTITY CARD NUMBER							I. Q.			LOGIC			SYNTAX					LANGUAGE		ATTITUDE													
							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22					
Name of Pupil														Meaning of words						What is a sentence?													
														Phrases and their exemplification						Major parts of a sentence													
														Passages for comprehension						Clauses													
														Classification						Punctuation													
														Definitions and endings						Prepositions and conjunctions													
														Tautology						Precision in the use of words													
																				Language Strata													
																				Expressions													
																				Objectivity													

[illegible]

THE CONVERSION OF TEST MARKS INTO "TEACHERS' MARKS"

The converting of test marks into "teachers' marks was carried out in accordance with the spread of marks given by teachers for compositions written by all children in Grade 8 as part of the Secondary School Selection Test in 1960. The following table shows the distribution of marks awarded for test performance as compared with the distribution of "teacher's marks".

There is no absolute correspondence between the various marks, since the number of marks awarded in the tests sometimes forced us to round out the final figure.

THE "TRANSLATION" OF TEST SCORES INTO TEACHER'S MARKS

The test scores were converted into a 7 point scale in order to resemble the scale of teachers' marks.

The overall distribution of marks accorded by teachers to pupils in Grade 8, as part of the Secondary School Selection Test in 1961, served as a model.

The following table shows these distributions (in percentages) of various tests by teachers' marks. The model distribution is given at the foot of the table.

As may be seen in the table, the truncated distribution of some of the test scores did not allow for a perfect fit between them and the model.

THE FREQUENCY DISTRIBUTION OF TEST SCORES
(in percentages)

Mark: OUR TESTS	Excel- lent	Very good	Good	Fairly Good	Satis- factory	Scarcely Satis- factory	Unsat- isfact- ory	Aver- age
Language Strata		2	13	39	30	12	4	6.51
Expressions			31	28	20	15	6	6.63
Punctuation Marks	3	4	24	24	24	16	5	6.70
Parts of Sentences (main parts)	3	6	19	25	21	22	4	6.46
Parts of Sentences (main clauses)			33	26	17	20	4	6.64
Types of Sentences	2	3	18	35	19	9	14	6.51
What is a Sentence?		7	27	18	29	14	5	6.79
Relative Pronouns	1	13	26	28	16	10	6	7.01
Conjunctions	2	3	16	39	18	16	6	6.6
Precision in Use of Words		10	22	28	23	12	5	6.8
Classification		12	12	30	23	19	4	6.63
Tautology	1	2	29	18	29	18	3	6.62
Plannings & Endings	3	14	17	14	26	20	6	6.70
Logic: Sayings & Exempli- fication		18	3	26	34	16	3	6.64
Word Meanings	1	7	17	29	23	19	4	6.67
AVERAGE SAMPLE TEACHERS' MARKS IN THE SELECTION TESTS	2	11	20	22	20	13	6	6.42

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